

```
In [ ]: import pandas as pd
import numpy as np
```

```
In [ ]: df = pd.read_csv('data/pima-indians-diabetes.csv', header=None)
df.head()
```

```
Out [ ]:
```

	0	1	2	3	4	5	6	7	8
0	6	148	72	35	0	33.6	0.627	50	1
1	1	85	66	29	0	26.6	0.351	31	0
2	8	183	64	0	0	23.3	0.672	32	1
3	1	89	66	23	94	28.1	0.167	21	0
4	0	137	40	35	168	43.1	2.288	33	1

```
In [ ]: x = df.iloc[:, :8]
y = df.iloc[:, 8]
```

Define a function that returns keras model itself

```
In [ ]: from tensorflow.keras.models import Sequential
from tensorflow.keras.layers import Dense, Dropout
from tensorflow.keras.regularizers import l2
```

```
In [ ]: def build_model(lambda_param):
    model = Sequential()
    model.add(Dense(8, input_dim=8, activation='relu', kernel_regularizer=l2(lambda_param)))
    model.add(Dense(8, activation='relu', kernel_regularizer=l2(lambda_param)))
    model.add(Dense(1, activation='sigmoid'))
    model.compile(loss='binary_crossentropy', optimizer='sgd', metrics=['accuracy'])
    return model
```

```
In [ ]: np.random.seed(1)
```

```
In [ ]: from tensorflow.keras.wrappers.scikit_learn import KerasClassifier
from sklearn.model_selection import GridSearchCV
```

```
In [ ]: model = KerasClassifier(build_fn=build_model)
```

```
/tmp/ipykernel_24242/2775510547.py:1: DeprecationWarning: KerasClassifier is deprecated, use Sci-Keras (https://
github.com/adriangb/scikeras) instead. See https://www.adriangb.com/scikeras/stable/migration.html for help migr
ating.
model = KerasClassifier(build_fn=build_model)
```

```
In [ ]: lambda_param = [0.01, 0.1, 0.5, 0.1]
epochs = [50, 75, 100]
batch_size = [8, 16]
grid_params = dict(lambda_param=lambda_param, epochs=epochs, batch_size=batch_size)
grid_search = GridSearchCV(estimator=model, param_grid=grid_params, cv=5)
```

```
In [ ]: results = grid_search.fit(x,y)
```

```
2023-03-28 19:24:47.105593: W tensorflow/compiler/xla/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic library 'libcuda.so.1'; dlopen error: libcuda.so.1: cannot open shared object file: No such file or directory
2023-03-28 19:24:47.105656: W tensorflow/compiler/xla/stream_executor/cuda/cuda_driver.cc:265] failed call to cuInit: UNKNOWN ERROR (303)
2023-03-28 19:24:47.105684: I tensorflow/compiler/xla/stream_executor/cuda/cuda_diagnostics.cc:156] kernel driver does not appear to be running on this host (neeraj-HP-Laptop): /proc/driver/nvidia/version does not exist
2023-03-28 19:24:47.106111: I tensorflow/core/platform/cpu_feature_guard.cc:193] This TensorFlow binary is optimized with oneAPI Deep Neural Network Library (oneDNN) to use the following CPU instructions in performance-critical operations: AVX2 FMA
To enable them in other operations, rebuild TensorFlow with the appropriate compiler flags.
```

```
Epoch 1/50
77/77 [=====] - 0s 1ms/step - loss: 1.4322 - accuracy: 0.6270
Epoch 2/50
77/77 [=====] - 0s 1ms/step - loss: 0.7966 - accuracy: 0.6498
Epoch 3/50
77/77 [=====] - 0s 1ms/step - loss: 0.7727 - accuracy: 0.6515
Epoch 4/50
77/77 [=====] - 0s 1ms/step - loss: 0.7613 - accuracy: 0.6547
Epoch 5/50
77/77 [=====] - 0s 1ms/step - loss: 0.7576 - accuracy: 0.6515
Epoch 6/50
77/77 [=====] - 0s 1ms/step - loss: 0.7582 - accuracy: 0.6515
Epoch 7/50
77/77 [=====] - 0s 1ms/step - loss: 0.7334 - accuracy: 0.6531
Epoch 8/50
77/77 [=====] - 0s 1ms/step - loss: 0.7556 - accuracy: 0.6531
Epoch 9/50
77/77 [=====] - 0s 1ms/step - loss: 0.7398 - accuracy: 0.6547
Epoch 10/50
77/77 [=====] - 0s 1ms/step - loss: 0.7397 - accuracy: 0.6547
Epoch 11/50
77/77 [=====] - 0s 1ms/step - loss: 0.7306 - accuracy: 0.6547
Epoch 12/50
77/77 [=====] - 0s 1ms/step - loss: 0.7230 - accuracy: 0.6547
Epoch 13/50
77/77 [=====] - 0s 1ms/step - loss: 0.7122 - accuracy: 0.6547
Epoch 14/50
77/77 [=====] - 0s 1ms/step - loss: 0.7212 - accuracy: 0.6547
Epoch 15/50
77/77 [=====] - 0s 1ms/step - loss: 0.7125 - accuracy: 0.6547
Epoch 16/50
77/77 [=====] - 0s 1ms/step - loss: 0.7147 - accuracy: 0.6547
Epoch 17/50
77/77 [=====] - 0s 1ms/step - loss: 0.7117 - accuracy: 0.6547
Epoch 18/50
77/77 [=====] - 0s 1ms/step - loss: 0.7090 - accuracy: 0.6547
Epoch 19/50
77/77 [=====] - 0s 1ms/step - loss: 0.6966 - accuracy: 0.6547
Epoch 20/50
77/77 [=====] - 0s 1ms/step - loss: 0.7024 - accuracy: 0.6547
Epoch 21/50
77/77 [=====] - 0s 1ms/step - loss: 0.7015 - accuracy: 0.6515
Epoch 22/50
77/77 [=====] - 0s 1ms/step - loss: 0.6944 - accuracy: 0.6547
Epoch 23/50
77/77 [=====] - 0s 1ms/step - loss: 0.6949 - accuracy: 0.6531
Epoch 24/50
77/77 [=====] - 0s 1ms/step - loss: 0.6915 - accuracy: 0.6531
Epoch 25/50
77/77 [=====] - 0s 1ms/step - loss: 0.6839 - accuracy: 0.6547
Epoch 26/50
77/77 [=====] - 0s 1ms/step - loss: 0.6873 - accuracy: 0.6547
Epoch 27/50
77/77 [=====] - 0s 2ms/step - loss: 0.6760 - accuracy: 0.6547
Epoch 28/50
77/77 [=====] - 0s 1ms/step - loss: 0.6863 - accuracy: 0.6531
Epoch 29/50
77/77 [=====] - 0s 1ms/step - loss: 0.6802 - accuracy: 0.6547
Epoch 30/50
77/77 [=====] - 0s 1ms/step - loss: 0.6778 - accuracy: 0.6547
Epoch 31/50
77/77 [=====] - 0s 1ms/step - loss: 0.6718 - accuracy: 0.6531
Epoch 32/50
77/77 [=====] - 0s 1ms/step - loss: 0.6705 - accuracy: 0.6531
Epoch 33/50
77/77 [=====] - 0s 1ms/step - loss: 0.6768 - accuracy: 0.6547
Epoch 34/50
77/77 [=====] - 0s 1ms/step - loss: 0.6718 - accuracy: 0.6531
Epoch 35/50
77/77 [=====] - 0s 1ms/step - loss: 0.6704 - accuracy: 0.6547
Epoch 36/50
77/77 [=====] - 0s 1ms/step - loss: 0.6680 - accuracy: 0.6547
Epoch 37/50
77/77 [=====] - 0s 1ms/step - loss: 0.6665 - accuracy: 0.6515
Epoch 38/50
77/77 [=====] - 0s 1ms/step - loss: 0.6650 - accuracy: 0.6547
Epoch 39/50
77/77 [=====] - 0s 1ms/step - loss: 0.6681 - accuracy: 0.6547
Epoch 40/50
77/77 [=====] - 0s 1ms/step - loss: 0.6660 - accuracy: 0.6547
Epoch 41/50
77/77 [=====] - 0s 1ms/step - loss: 0.6621 - accuracy: 0.6515
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Epoch 42/50
77/77 [=====] - 0s 2ms/step - loss: 0.6606 - accuracy: 0.6547
Epoch 43/50
77/77 [=====] - 0s 1ms/step - loss: 0.6551 - accuracy: 0.6531
Epoch 44/50
77/77 [=====] - 0s 1ms/step - loss: 0.6581 - accuracy: 0.6531
Epoch 45/50
77/77 [=====] - 0s 1ms/step - loss: 0.6563 - accuracy: 0.6531
Epoch 46/50
77/77 [=====] - 0s 1ms/step - loss: 0.6564 - accuracy: 0.6547
Epoch 47/50
77/77 [=====] - 0s 1ms/step - loss: 0.6524 - accuracy: 0.6547
Epoch 48/50
77/77 [=====] - 0s 1ms/step - loss: 0.6513 - accuracy: 0.6531
Epoch 49/50
77/77 [=====] - 0s 1ms/step - loss: 0.6550 - accuracy: 0.6547
Epoch 50/50
77/77 [=====] - 0s 1ms/step - loss: 0.6534 - accuracy: 0.6547
20/20 [=====] - 0s 1ms/step - loss: 0.6584 - accuracy: 0.6429
Epoch 1/50
77/77 [=====] - 0s 1ms/step - loss: 0.9574 - accuracy: 0.6775
Epoch 2/50
77/77 [=====] - 0s 1ms/step - loss: 0.8049 - accuracy: 0.6808
Epoch 3/50
77/77 [=====] - 0s 1ms/step - loss: 0.7930 - accuracy: 0.6726
Epoch 4/50
77/77 [=====] - 0s 1ms/step - loss: 0.7866 - accuracy: 0.6710
Epoch 5/50
77/77 [=====] - 0s 965us/step - loss: 0.7759 - accuracy: 0.6726
Epoch 6/50
77/77 [=====] - 0s 1ms/step - loss: 0.7616 - accuracy: 0.6775
Epoch 7/50
77/77 [=====] - 0s 1ms/step - loss: 0.7644 - accuracy: 0.6678
Epoch 8/50
77/77 [=====] - 0s 1ms/step - loss: 0.7573 - accuracy: 0.6678
Epoch 9/50
77/77 [=====] - 0s 2ms/step - loss: 0.7692 - accuracy: 0.6612
Epoch 10/50
77/77 [=====] - 0s 1ms/step - loss: 0.7501 - accuracy: 0.6743
Epoch 11/50
77/77 [=====] - 0s 1ms/step - loss: 0.7456 - accuracy: 0.6678
Epoch 12/50
77/77 [=====] - 0s 1ms/step - loss: 0.7347 - accuracy: 0.6775
Epoch 13/50
77/77 [=====] - 0s 1ms/step - loss: 0.7484 - accuracy: 0.6775
Epoch 14/50
77/77 [=====] - 0s 1ms/step - loss: 0.7583 - accuracy: 0.6678
Epoch 15/50
77/77 [=====] - 0s 1ms/step - loss: 0.7308 - accuracy: 0.6694
Epoch 16/50
77/77 [=====] - 0s 1ms/step - loss: 0.7294 - accuracy: 0.6694
Epoch 17/50
77/77 [=====] - 0s 1ms/step - loss: 0.7275 - accuracy: 0.6710
Epoch 18/50
77/77 [=====] - 0s 1ms/step - loss: 0.7242 - accuracy: 0.6694
Epoch 19/50
77/77 [=====] - 0s 1ms/step - loss: 0.7197 - accuracy: 0.6694
Epoch 20/50
77/77 [=====] - 0s 1ms/step - loss: 0.7173 - accuracy: 0.6678
Epoch 21/50
77/77 [=====] - 0s 1ms/step - loss: 0.7177 - accuracy: 0.6710
Epoch 22/50
77/77 [=====] - 0s 1ms/step - loss: 0.7167 - accuracy: 0.6678
Epoch 23/50
77/77 [=====] - 0s 1ms/step - loss: 0.7110 - accuracy: 0.6743
Epoch 24/50
77/77 [=====] - 0s 1ms/step - loss: 0.7082 - accuracy: 0.6710
Epoch 25/50
77/77 [=====] - 0s 1ms/step - loss: 0.7044 - accuracy: 0.6694
Epoch 26/50
77/77 [=====] - 0s 2ms/step - loss: 0.7043 - accuracy: 0.6726
Epoch 27/50
77/77 [=====] - 0s 1ms/step - loss: 0.7001 - accuracy: 0.6743
Epoch 28/50
77/77 [=====] - 0s 1ms/step - loss: 0.6972 - accuracy: 0.6710
Epoch 29/50
77/77 [=====] - 0s 1ms/step - loss: 0.7004 - accuracy: 0.6694
Epoch 30/50
77/77 [=====] - 0s 1ms/step - loss: 0.6930 - accuracy: 0.6710
Epoch 31/50
77/77 [=====] - 0s 1ms/step - loss: 0.6927 - accuracy: 0.6726
Epoch 32/50

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77/77 [=====] - 0s 1ms/step - loss: 0.6946 - accuracy: 0.6726
Epoch 33/50
77/77 [=====] - 0s 1ms/step - loss: 0.6837 - accuracy: 0.6840
Epoch 34/50
77/77 [=====] - 0s 1ms/step - loss: 0.6723 - accuracy: 0.6824
Epoch 35/50
77/77 [=====] - 0s 1ms/step - loss: 0.6730 - accuracy: 0.6808
Epoch 36/50
77/77 [=====] - 0s 1ms/step - loss: 0.6757 - accuracy: 0.6726
Epoch 37/50
77/77 [=====] - 0s 1ms/step - loss: 0.6678 - accuracy: 0.6808
Epoch 38/50
77/77 [=====] - 0s 1ms/step - loss: 0.6636 - accuracy: 0.6954
Epoch 39/50
77/77 [=====] - 0s 1ms/step - loss: 0.6650 - accuracy: 0.6759
Epoch 40/50
77/77 [=====] - 0s 1ms/step - loss: 0.6592 - accuracy: 0.6873
Epoch 41/50
77/77 [=====] - 0s 1ms/step - loss: 0.6632 - accuracy: 0.6889
Epoch 42/50
77/77 [=====] - 0s 1ms/step - loss: 0.6584 - accuracy: 0.6954
Epoch 43/50
77/77 [=====] - 0s 1ms/step - loss: 0.6594 - accuracy: 0.6971
Epoch 44/50
77/77 [=====] - 0s 1ms/step - loss: 0.6547 - accuracy: 0.6792
Epoch 45/50
77/77 [=====] - 0s 1ms/step - loss: 0.6544 - accuracy: 0.6857
Epoch 46/50
77/77 [=====] - 0s 1ms/step - loss: 0.6525 - accuracy: 0.6906
Epoch 47/50
77/77 [=====] - 0s 1ms/step - loss: 0.6445 - accuracy: 0.6987
Epoch 48/50
77/77 [=====] - 0s 1ms/step - loss: 0.6470 - accuracy: 0.6938
Epoch 49/50
77/77 [=====] - 0s 1ms/step - loss: 0.6524 - accuracy: 0.6743
Epoch 50/50
77/77 [=====] - 0s 1ms/step - loss: 0.6473 - accuracy: 0.6954
20/20 [=====] - 0s 1ms/step - loss: 0.6950 - accuracy: 0.6169
Epoch 1/50
77/77 [=====] - 0s 1ms/step - loss: 1.3613 - accuracy: 0.5863
Epoch 2/50
77/77 [=====] - 0s 1ms/step - loss: 0.8103 - accuracy: 0.6580
Epoch 3/50
77/77 [=====] - 0s 1ms/step - loss: 0.7961 - accuracy: 0.6694
Epoch 4/50
77/77 [=====] - 0s 1ms/step - loss: 0.7827 - accuracy: 0.6596
Epoch 5/50
77/77 [=====] - 0s 1ms/step - loss: 0.7760 - accuracy: 0.6661
Epoch 6/50
77/77 [=====] - 0s 1ms/step - loss: 0.7678 - accuracy: 0.6694
Epoch 7/50
77/77 [=====] - 0s 1ms/step - loss: 0.7623 - accuracy: 0.6596
Epoch 8/50
77/77 [=====] - 0s 1ms/step - loss: 0.7545 - accuracy: 0.6694
Epoch 9/50
77/77 [=====] - 0s 1ms/step - loss: 0.7498 - accuracy: 0.6629
Epoch 10/50
77/77 [=====] - 0s 1ms/step - loss: 0.7461 - accuracy: 0.6661
Epoch 11/50
77/77 [=====] - 0s 1ms/step - loss: 0.7418 - accuracy: 0.6661
Epoch 12/50
77/77 [=====] - 0s 1ms/step - loss: 0.7357 - accuracy: 0.6694
Epoch 13/50
77/77 [=====] - 0s 1ms/step - loss: 0.7349 - accuracy: 0.6629
Epoch 14/50
77/77 [=====] - 0s 1ms/step - loss: 0.7312 - accuracy: 0.6694
Epoch 15/50
77/77 [=====] - 0s 1ms/step - loss: 0.7278 - accuracy: 0.6678
Epoch 16/50
77/77 [=====] - 0s 1ms/step - loss: 0.7245 - accuracy: 0.6694
Epoch 17/50
77/77 [=====] - 0s 1ms/step - loss: 0.7207 - accuracy: 0.6629
Epoch 18/50
77/77 [=====] - 0s 1ms/step - loss: 0.7209 - accuracy: 0.6645
Epoch 19/50
77/77 [=====] - 0s 1ms/step - loss: 0.7169 - accuracy: 0.6661
Epoch 20/50
77/77 [=====] - 0s 1ms/step - loss: 0.7125 - accuracy: 0.6678
Epoch 21/50
77/77 [=====] - 0s 1ms/step - loss: 0.7094 - accuracy: 0.6678
Epoch 22/50
77/77 [=====] - 0s 1ms/step - loss: 0.7070 - accuracy: 0.6743
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Epoch 23/50
77/77 [=====] - 0s 1ms/step - loss: 0.7102 - accuracy: 0.6531
Epoch 24/50
77/77 [=====] - 0s 1ms/step - loss: 0.6882 - accuracy: 0.6873
Epoch 25/50
77/77 [=====] - 0s 2ms/step - loss: 0.6871 - accuracy: 0.6840
Epoch 26/50
77/77 [=====] - 0s 1ms/step - loss: 0.6840 - accuracy: 0.6840
Epoch 27/50
77/77 [=====] - 0s 1ms/step - loss: 0.6844 - accuracy: 0.6759
Epoch 28/50
77/77 [=====] - 0s 1ms/step - loss: 0.6777 - accuracy: 0.6808
Epoch 29/50
77/77 [=====] - 0s 1ms/step - loss: 0.6794 - accuracy: 0.6710
Epoch 30/50
77/77 [=====] - 0s 1ms/step - loss: 0.6756 - accuracy: 0.6759
Epoch 31/50
77/77 [=====] - 0s 1ms/step - loss: 0.6675 - accuracy: 0.6840
Epoch 32/50
77/77 [=====] - 0s 1ms/step - loss: 0.6633 - accuracy: 0.6840
Epoch 33/50
77/77 [=====] - 0s 1ms/step - loss: 0.6582 - accuracy: 0.6906
Epoch 34/50
77/77 [=====] - 0s 1ms/step - loss: 0.6622 - accuracy: 0.6938
Epoch 35/50
77/77 [=====] - 0s 1ms/step - loss: 0.6618 - accuracy: 0.6857
Epoch 36/50
77/77 [=====] - 0s 1ms/step - loss: 0.6621 - accuracy: 0.6710
Epoch 37/50
77/77 [=====] - 0s 1ms/step - loss: 0.6604 - accuracy: 0.6938
Epoch 38/50
77/77 [=====] - 0s 1ms/step - loss: 0.6543 - accuracy: 0.6808
Epoch 39/50
77/77 [=====] - 0s 1ms/step - loss: 0.6534 - accuracy: 0.6857
Epoch 40/50
77/77 [=====] - 0s 1ms/step - loss: 0.6480 - accuracy: 0.6661
Epoch 41/50
77/77 [=====] - 0s 1ms/step - loss: 0.6475 - accuracy: 0.6775
Epoch 42/50
77/77 [=====] - 0s 1ms/step - loss: 0.6528 - accuracy: 0.6775
Epoch 43/50
77/77 [=====] - 0s 1ms/step - loss: 0.6391 - accuracy: 0.6954
Epoch 44/50
77/77 [=====] - 0s 1ms/step - loss: 0.6459 - accuracy: 0.6938
Epoch 45/50
77/77 [=====] - 0s 1ms/step - loss: 0.6337 - accuracy: 0.6954
Epoch 46/50
77/77 [=====] - 0s 2ms/step - loss: 0.6280 - accuracy: 0.6938
Epoch 47/50
77/77 [=====] - 0s 1ms/step - loss: 0.6354 - accuracy: 0.6922
Epoch 48/50
77/77 [=====] - 0s 1ms/step - loss: 0.6357 - accuracy: 0.6906
Epoch 49/50
77/77 [=====] - 0s 1ms/step - loss: 0.6348 - accuracy: 0.6987
Epoch 50/50
77/77 [=====] - 0s 1ms/step - loss: 0.6304 - accuracy: 0.6938
20/20 [=====] - 0s 1ms/step - loss: 0.6103 - accuracy: 0.6883
Epoch 1/50
77/77 [=====] - 0s 1ms/step - loss: 2.4379 - accuracy: 0.6049
Epoch 2/50
77/77 [=====] - 0s 1ms/step - loss: 0.8243 - accuracy: 0.6325
Epoch 3/50
77/77 [=====] - 0s 1ms/step - loss: 0.8126 - accuracy: 0.6325
Epoch 4/50
77/77 [=====] - 0s 1ms/step - loss: 0.8001 - accuracy: 0.6358
Epoch 5/50
77/77 [=====] - 0s 1ms/step - loss: 0.7930 - accuracy: 0.6358
Epoch 6/50
77/77 [=====] - 0s 1ms/step - loss: 0.7861 - accuracy: 0.6358
Epoch 7/50
77/77 [=====] - 0s 1ms/step - loss: 0.7816 - accuracy: 0.6341
Epoch 8/50
77/77 [=====] - 0s 1ms/step - loss: 0.7767 - accuracy: 0.6358
Epoch 9/50
77/77 [=====] - 0s 1ms/step - loss: 0.7681 - accuracy: 0.6390
Epoch 10/50
77/77 [=====] - 0s 1ms/step - loss: 0.7622 - accuracy: 0.6423
Epoch 11/50
77/77 [=====] - 0s 1ms/step - loss: 0.7548 - accuracy: 0.6455
Epoch 12/50
77/77 [=====] - 0s 1ms/step - loss: 0.7523 - accuracy: 0.6602
Epoch 13/50
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77/77 [=====] - 0s 1ms/step - loss: 0.7476 - accuracy: 0.6390
Epoch 14/50
77/77 [=====] - 0s 1ms/step - loss: 0.7437 - accuracy: 0.6488
Epoch 15/50
77/77 [=====] - 0s 1ms/step - loss: 0.7367 - accuracy: 0.6602
Epoch 16/50
77/77 [=====] - 0s 1ms/step - loss: 0.7346 - accuracy: 0.6439
Epoch 17/50
77/77 [=====] - 0s 1ms/step - loss: 0.7329 - accuracy: 0.6569
Epoch 18/50
77/77 [=====] - 0s 1ms/step - loss: 0.7275 - accuracy: 0.6553
Epoch 19/50
77/77 [=====] - 0s 1ms/step - loss: 0.7260 - accuracy: 0.6602
Epoch 20/50
77/77 [=====] - 0s 1ms/step - loss: 0.7226 - accuracy: 0.6520
Epoch 21/50
77/77 [=====] - 0s 1ms/step - loss: 0.7193 - accuracy: 0.6569
Epoch 22/50
77/77 [=====] - 0s 1ms/step - loss: 0.7147 - accuracy: 0.6488
Epoch 23/50
77/77 [=====] - 0s 2ms/step - loss: 0.7135 - accuracy: 0.6488
Epoch 24/50
77/77 [=====] - 0s 1ms/step - loss: 0.7064 - accuracy: 0.6667
Epoch 25/50
77/77 [=====] - 0s 1ms/step - loss: 0.7043 - accuracy: 0.6569
Epoch 26/50
77/77 [=====] - 0s 1ms/step - loss: 0.7053 - accuracy: 0.6585
Epoch 27/50
77/77 [=====] - 0s 1ms/step - loss: 0.7010 - accuracy: 0.6325
Epoch 28/50
77/77 [=====] - 0s 1ms/step - loss: 0.6961 - accuracy: 0.6732
Epoch 29/50
77/77 [=====] - 0s 1ms/step - loss: 0.6959 - accuracy: 0.6585
Epoch 30/50
77/77 [=====] - 0s 1ms/step - loss: 0.6894 - accuracy: 0.6667
Epoch 31/50
77/77 [=====] - 0s 1ms/step - loss: 0.6925 - accuracy: 0.6585
Epoch 32/50
77/77 [=====] - 0s 1ms/step - loss: 0.6885 - accuracy: 0.6667
Epoch 33/50
77/77 [=====] - 0s 1ms/step - loss: 0.6879 - accuracy: 0.6618
Epoch 34/50
77/77 [=====] - 0s 1ms/step - loss: 0.6847 - accuracy: 0.6585
Epoch 35/50
77/77 [=====] - 0s 1ms/step - loss: 0.6837 - accuracy: 0.6537
Epoch 36/50
77/77 [=====] - 0s 1ms/step - loss: 0.6763 - accuracy: 0.6618
Epoch 37/50
77/77 [=====] - 0s 1ms/step - loss: 0.6810 - accuracy: 0.6553
Epoch 38/50
77/77 [=====] - 0s 1ms/step - loss: 0.6758 - accuracy: 0.6569
Epoch 39/50
77/77 [=====] - 0s 1ms/step - loss: 0.6753 - accuracy: 0.6569
Epoch 40/50
77/77 [=====] - 0s 1ms/step - loss: 0.6767 - accuracy: 0.6683
Epoch 41/50
77/77 [=====] - 0s 1ms/step - loss: 0.6748 - accuracy: 0.6472
Epoch 42/50
77/77 [=====] - 0s 2ms/step - loss: 0.6743 - accuracy: 0.6618
Epoch 43/50
77/77 [=====] - 0s 1ms/step - loss: 0.6651 - accuracy: 0.6634
Epoch 44/50
77/77 [=====] - 0s 1ms/step - loss: 0.6687 - accuracy: 0.6602
Epoch 45/50
77/77 [=====] - 0s 1ms/step - loss: 0.6596 - accuracy: 0.6602
Epoch 46/50
77/77 [=====] - 0s 1ms/step - loss: 0.6655 - accuracy: 0.6423
Epoch 47/50
77/77 [=====] - 0s 2ms/step - loss: 0.6642 - accuracy: 0.6618
Epoch 48/50
77/77 [=====] - 0s 1ms/step - loss: 0.6619 - accuracy: 0.6602
Epoch 49/50
77/77 [=====] - 0s 1ms/step - loss: 0.6651 - accuracy: 0.6602
Epoch 50/50
77/77 [=====] - 0s 1ms/step - loss: 0.6601 - accuracy: 0.6602
20/20 [=====] - 0s 1ms/step - loss: 0.6191 - accuracy: 0.7124
Epoch 1/50
77/77 [=====] - 0s 1ms/step - loss: 1.5417 - accuracy: 0.6065
Epoch 2/50
77/77 [=====] - 0s 1ms/step - loss: 0.8240 - accuracy: 0.6455
Epoch 3/50
77/77 [=====] - 0s 1ms/step - loss: 0.8130 - accuracy: 0.6537
```

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Epoch 4/50
77/77 [=====] - 0s 1ms/step - loss: 0.7968 - accuracy: 0.6602
Epoch 5/50
77/77 [=====] - 0s 1ms/step - loss: 0.7902 - accuracy: 0.6618
Epoch 6/50
77/77 [=====] - 0s 1ms/step - loss: 0.7803 - accuracy: 0.6602
Epoch 7/50
77/77 [=====] - 0s 1ms/step - loss: 0.7735 - accuracy: 0.6553
Epoch 8/50
77/77 [=====] - 0s 1ms/step - loss: 0.7678 - accuracy: 0.6618
Epoch 9/50
77/77 [=====] - 0s 1ms/step - loss: 0.7608 - accuracy: 0.6650
Epoch 10/50
77/77 [=====] - 0s 1ms/step - loss: 0.7565 - accuracy: 0.6602
Epoch 11/50
77/77 [=====] - 0s 1ms/step - loss: 0.7514 - accuracy: 0.6569
Epoch 12/50
77/77 [=====] - 0s 1ms/step - loss: 0.7469 - accuracy: 0.6618
Epoch 13/50
77/77 [=====] - 0s 1ms/step - loss: 0.7409 - accuracy: 0.6650
Epoch 14/50
77/77 [=====] - 0s 1ms/step - loss: 0.7382 - accuracy: 0.6699
Epoch 15/50
77/77 [=====] - 0s 1ms/step - loss: 0.7347 - accuracy: 0.6618
Epoch 16/50
77/77 [=====] - 0s 2ms/step - loss: 0.7286 - accuracy: 0.6683
Epoch 17/50
77/77 [=====] - 0s 1ms/step - loss: 0.7265 - accuracy: 0.6667
Epoch 18/50
77/77 [=====] - 0s 1ms/step - loss: 0.7227 - accuracy: 0.6667
Epoch 19/50
77/77 [=====] - 0s 1ms/step - loss: 0.7213 - accuracy: 0.6634
Epoch 20/50
77/77 [=====] - 0s 1ms/step - loss: 0.7164 - accuracy: 0.6585
Epoch 21/50
77/77 [=====] - 0s 1ms/step - loss: 0.7146 - accuracy: 0.6650
Epoch 22/50
77/77 [=====] - 0s 1ms/step - loss: 0.7100 - accuracy: 0.6715
Epoch 23/50
77/77 [=====] - 0s 1ms/step - loss: 0.7073 - accuracy: 0.6683
Epoch 24/50
77/77 [=====] - 0s 1ms/step - loss: 0.7059 - accuracy: 0.6699
Epoch 25/50
77/77 [=====] - 0s 1ms/step - loss: 0.7019 - accuracy: 0.6683
Epoch 26/50
77/77 [=====] - 0s 1ms/step - loss: 0.6926 - accuracy: 0.6846
Epoch 27/50
77/77 [=====] - 0s 1ms/step - loss: 0.6975 - accuracy: 0.6715
Epoch 28/50
77/77 [=====] - 0s 1ms/step - loss: 0.6955 - accuracy: 0.6732
Epoch 29/50
77/77 [=====] - 0s 1ms/step - loss: 0.6930 - accuracy: 0.6667
Epoch 30/50
77/77 [=====] - 0s 1ms/step - loss: 0.6918 - accuracy: 0.6683
Epoch 31/50
77/77 [=====] - 0s 1ms/step - loss: 0.6836 - accuracy: 0.6748
Epoch 32/50
77/77 [=====] - 0s 2ms/step - loss: 0.6782 - accuracy: 0.6829
Epoch 33/50
77/77 [=====] - 0s 1ms/step - loss: 0.6846 - accuracy: 0.6667
Epoch 34/50
77/77 [=====] - 0s 1ms/step - loss: 0.6690 - accuracy: 0.6683
Epoch 35/50
77/77 [=====] - 0s 1ms/step - loss: 0.6674 - accuracy: 0.6748
Epoch 36/50
77/77 [=====] - 0s 1ms/step - loss: 0.6695 - accuracy: 0.6878
Epoch 37/50
77/77 [=====] - 0s 1ms/step - loss: 0.6618 - accuracy: 0.6813
Epoch 38/50
77/77 [=====] - 0s 1ms/step - loss: 0.6608 - accuracy: 0.6829
Epoch 39/50
77/77 [=====] - 0s 1ms/step - loss: 0.6553 - accuracy: 0.6764
Epoch 40/50
77/77 [=====] - 0s 1ms/step - loss: 0.6578 - accuracy: 0.6780
Epoch 41/50
77/77 [=====] - 0s 1ms/step - loss: 0.6516 - accuracy: 0.6878
Epoch 42/50
77/77 [=====] - 0s 1ms/step - loss: 0.6469 - accuracy: 0.6829
Epoch 43/50
77/77 [=====] - 0s 1ms/step - loss: 0.6484 - accuracy: 0.6894
Epoch 44/50
77/77 [=====] - 0s 1ms/step - loss: 0.6435 - accuracy: 0.6862
```

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Epoch 45/50
77/77 [=====] - 0s 1ms/step - loss: 0.6406 - accuracy: 0.6862
Epoch 46/50
77/77 [=====] - 0s 1ms/step - loss: 0.6383 - accuracy: 0.6862
Epoch 47/50
77/77 [=====] - 0s 1ms/step - loss: 0.6382 - accuracy: 0.6813
Epoch 48/50
77/77 [=====] - 0s 1ms/step - loss: 0.6290 - accuracy: 0.6813
Epoch 49/50
77/77 [=====] - 0s 1ms/step - loss: 0.6251 - accuracy: 0.6911
Epoch 50/50
77/77 [=====] - 0s 1ms/step - loss: 0.6321 - accuracy: 0.7089
20/20 [=====] - 0s 1ms/step - loss: 0.6449 - accuracy: 0.6863
Epoch 1/50
77/77 [=====] - 0s 1ms/step - loss: 1.9820 - accuracy: 0.6466
Epoch 2/50
77/77 [=====] - 0s 1ms/step - loss: 1.5544 - accuracy: 0.6547
Epoch 3/50
77/77 [=====] - 0s 1ms/step - loss: 1.3117 - accuracy: 0.6547
Epoch 4/50
77/77 [=====] - 0s 1ms/step - loss: 1.1346 - accuracy: 0.6531
Epoch 5/50
77/77 [=====] - 0s 1ms/step - loss: 1.0044 - accuracy: 0.6531
Epoch 6/50
77/77 [=====] - 0s 1ms/step - loss: 0.9090 - accuracy: 0.6547
Epoch 7/50
77/77 [=====] - 0s 2ms/step - loss: 0.8393 - accuracy: 0.6547
Epoch 8/50
77/77 [=====] - 0s 1ms/step - loss: 0.7882 - accuracy: 0.6547
Epoch 9/50
77/77 [=====] - 0s 1ms/step - loss: 0.7505 - accuracy: 0.6531
Epoch 10/50
77/77 [=====] - 0s 1ms/step - loss: 0.7231 - accuracy: 0.6547
Epoch 11/50
77/77 [=====] - 0s 1ms/step - loss: 0.7028 - accuracy: 0.6531
Epoch 12/50
77/77 [=====] - 0s 1ms/step - loss: 0.6879 - accuracy: 0.6515
Epoch 13/50
77/77 [=====] - 0s 1ms/step - loss: 0.6771 - accuracy: 0.6515
Epoch 14/50
77/77 [=====] - 0s 1ms/step - loss: 0.6690 - accuracy: 0.6515
Epoch 15/50
77/77 [=====] - 0s 1ms/step - loss: 0.6631 - accuracy: 0.6515
Epoch 16/50
77/77 [=====] - 0s 1ms/step - loss: 0.6588 - accuracy: 0.6515
Epoch 17/50
77/77 [=====] - 0s 2ms/step - loss: 0.6556 - accuracy: 0.6515
Epoch 18/50
77/77 [=====] - 0s 1ms/step - loss: 0.6532 - accuracy: 0.6515
Epoch 19/50
77/77 [=====] - 0s 1ms/step - loss: 0.6515 - accuracy: 0.6515
Epoch 20/50
77/77 [=====] - 0s 1ms/step - loss: 0.6503 - accuracy: 0.6515
Epoch 21/50
77/77 [=====] - 0s 1ms/step - loss: 0.6493 - accuracy: 0.6515
Epoch 22/50
77/77 [=====] - 0s 1ms/step - loss: 0.6486 - accuracy: 0.6515
Epoch 23/50
77/77 [=====] - 0s 1ms/step - loss: 0.6482 - accuracy: 0.6515
Epoch 24/50
77/77 [=====] - 0s 1ms/step - loss: 0.6478 - accuracy: 0.6515
Epoch 25/50
77/77 [=====] - 0s 1ms/step - loss: 0.6475 - accuracy: 0.6515
Epoch 26/50
77/77 [=====] - 0s 1ms/step - loss: 0.6473 - accuracy: 0.6515
Epoch 27/50
77/77 [=====] - 0s 1ms/step - loss: 0.6471 - accuracy: 0.6515
Epoch 28/50
77/77 [=====] - 0s 1ms/step - loss: 0.6470 - accuracy: 0.6515
Epoch 29/50
77/77 [=====] - 0s 1ms/step - loss: 0.6469 - accuracy: 0.6515
Epoch 30/50
77/77 [=====] - 0s 1ms/step - loss: 0.6469 - accuracy: 0.6515
Epoch 31/50
77/77 [=====] - 0s 1ms/step - loss: 0.6468 - accuracy: 0.6515
Epoch 32/50
77/77 [=====] - 0s 1ms/step - loss: 0.6468 - accuracy: 0.6515
Epoch 33/50
77/77 [=====] - 0s 1ms/step - loss: 0.6468 - accuracy: 0.6515
Epoch 34/50
77/77 [=====] - 0s 1ms/step - loss: 0.6467 - accuracy: 0.6515
Epoch 35/50
```



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77/77 [=====] - 0s 1ms/step - loss: 0.6468 - accuracy: 0.6515
Epoch 36/50
77/77 [=====] - 0s 1ms/step - loss: 0.6467 - accuracy: 0.6515
Epoch 37/50
77/77 [=====] - 0s 1ms/step - loss: 0.6467 - accuracy: 0.6515
Epoch 38/50
77/77 [=====] - 0s 1ms/step - loss: 0.6467 - accuracy: 0.6515
Epoch 39/50
77/77 [=====] - 0s 1ms/step - loss: 0.6466 - accuracy: 0.6515
Epoch 40/50
77/77 [=====] - 0s 1ms/step - loss: 0.6467 - accuracy: 0.6515
Epoch 41/50
77/77 [=====] - 0s 1ms/step - loss: 0.6467 - accuracy: 0.6515
Epoch 42/50
77/77 [=====] - 0s 1ms/step - loss: 0.6467 - accuracy: 0.6515
Epoch 43/50
77/77 [=====] - 0s 1ms/step - loss: 0.6467 - accuracy: 0.6515
Epoch 44/50
77/77 [=====] - 0s 1ms/step - loss: 0.6467 - accuracy: 0.6515
Epoch 45/50
77/77 [=====] - 0s 1ms/step - loss: 0.6467 - accuracy: 0.6515
Epoch 46/50
77/77 [=====] - 0s 1ms/step - loss: 0.6467 - accuracy: 0.6515
Epoch 47/50
77/77 [=====] - 0s 1ms/step - loss: 0.6466 - accuracy: 0.6515
Epoch 48/50
77/77 [=====] - 0s 1ms/step - loss: 0.6467 - accuracy: 0.6515
Epoch 49/50
77/77 [=====] - 0s 2ms/step - loss: 0.6467 - accuracy: 0.6515
Epoch 50/50
77/77 [=====] - 0s 2ms/step - loss: 0.6467 - accuracy: 0.6515
20/20 [=====] - 0s 1ms/step - loss: 0.6479 - accuracy: 0.6494
Epoch 1/50
77/77 [=====] - 0s 1ms/step - loss: 3.5189 - accuracy: 0.6547
Epoch 2/50
77/77 [=====] - 0s 1ms/step - loss: 1.7679 - accuracy: 0.6694
Epoch 3/50
77/77 [=====] - 0s 1ms/step - loss: 1.4638 - accuracy: 0.6694
Epoch 4/50
77/77 [=====] - 0s 1ms/step - loss: 1.2417 - accuracy: 0.6710
Epoch 5/50
77/77 [=====] - 0s 1ms/step - loss: 1.0799 - accuracy: 0.6710
Epoch 6/50
77/77 [=====] - 0s 1ms/step - loss: 0.9610 - accuracy: 0.6726
Epoch 7/50
77/77 [=====] - 0s 1ms/step - loss: 0.8742 - accuracy: 0.6694
Epoch 8/50
77/77 [=====] - 0s 2ms/step - loss: 0.8093 - accuracy: 0.6678
Epoch 9/50
77/77 [=====] - 0s 1ms/step - loss: 0.7614 - accuracy: 0.6694
Epoch 10/50
77/77 [=====] - 0s 1ms/step - loss: 0.7282 - accuracy: 0.6710
Epoch 11/50
77/77 [=====] - 0s 1ms/step - loss: 0.7007 - accuracy: 0.6694
Epoch 12/50
77/77 [=====] - 0s 1ms/step - loss: 0.6799 - accuracy: 0.6726
Epoch 13/50
77/77 [=====] - 0s 1ms/step - loss: 0.6667 - accuracy: 0.6694
Epoch 14/50
77/77 [=====] - 0s 1ms/step - loss: 0.6503 - accuracy: 0.6694
Epoch 15/50
77/77 [=====] - 0s 1ms/step - loss: 0.6378 - accuracy: 0.6824
Epoch 16/50
77/77 [=====] - 0s 1ms/step - loss: 0.6288 - accuracy: 0.6922
Epoch 17/50
77/77 [=====] - 0s 1ms/step - loss: 0.6251 - accuracy: 0.6922
Epoch 18/50
77/77 [=====] - 0s 1ms/step - loss: 0.6212 - accuracy: 0.6889
Epoch 19/50
77/77 [=====] - 0s 1ms/step - loss: 0.6174 - accuracy: 0.6792
Epoch 20/50
77/77 [=====] - 0s 1ms/step - loss: 0.6176 - accuracy: 0.6792
Epoch 21/50
77/77 [=====] - 0s 1ms/step - loss: 0.6176 - accuracy: 0.6808
Epoch 22/50
77/77 [=====] - 0s 1ms/step - loss: 0.6107 - accuracy: 0.6889
Epoch 23/50
77/77 [=====] - 0s 1ms/step - loss: 0.6131 - accuracy: 0.6824
Epoch 24/50
77/77 [=====] - 0s 1ms/step - loss: 0.6116 - accuracy: 0.6938
Epoch 25/50
77/77 [=====] - 0s 1ms/step - loss: 0.6001 - accuracy: 0.7085
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Epoch 26/50
77/77 [=====] - 0s 1ms/step - loss: 0.5969 - accuracy: 0.7101
Epoch 27/50
77/77 [=====] - 0s 1ms/step - loss: 0.6017 - accuracy: 0.6840
Epoch 28/50
77/77 [=====] - 0s 1ms/step - loss: 0.5959 - accuracy: 0.6938
Epoch 29/50
77/77 [=====] - 0s 1ms/step - loss: 0.5977 - accuracy: 0.6889
Epoch 30/50
77/77 [=====] - 0s 1ms/step - loss: 0.5979 - accuracy: 0.7101
Epoch 31/50
77/77 [=====] - 0s 1ms/step - loss: 0.6006 - accuracy: 0.6987
Epoch 32/50
77/77 [=====] - 0s 1ms/step - loss: 0.5929 - accuracy: 0.7003
Epoch 33/50
77/77 [=====] - 0s 2ms/step - loss: 0.5977 - accuracy: 0.6840
Epoch 34/50
77/77 [=====] - 0s 1ms/step - loss: 0.6079 - accuracy: 0.6954
Epoch 35/50
77/77 [=====] - 0s 1ms/step - loss: 0.6082 - accuracy: 0.6906
Epoch 36/50
77/77 [=====] - 0s 1ms/step - loss: 0.6011 - accuracy: 0.7117
Epoch 37/50
77/77 [=====] - 0s 1ms/step - loss: 0.6022 - accuracy: 0.6987
Epoch 38/50
77/77 [=====] - 0s 1ms/step - loss: 0.6051 - accuracy: 0.6987
Epoch 39/50
77/77 [=====] - 0s 1ms/step - loss: 0.5987 - accuracy: 0.7085
Epoch 40/50
77/77 [=====] - 0s 1ms/step - loss: 0.5961 - accuracy: 0.6938
Epoch 41/50
77/77 [=====] - 0s 1ms/step - loss: 0.6007 - accuracy: 0.7085
Epoch 42/50
77/77 [=====] - 0s 2ms/step - loss: 0.5912 - accuracy: 0.7085
Epoch 43/50
77/77 [=====] - 0s 1ms/step - loss: 0.6038 - accuracy: 0.6954
Epoch 44/50
77/77 [=====] - 0s 1ms/step - loss: 0.5987 - accuracy: 0.6938
Epoch 45/50
77/77 [=====] - 0s 1ms/step - loss: 0.5981 - accuracy: 0.6922
Epoch 46/50
77/77 [=====] - 0s 1ms/step - loss: 0.5996 - accuracy: 0.7052
Epoch 47/50
77/77 [=====] - 0s 1ms/step - loss: 0.5893 - accuracy: 0.7052
Epoch 48/50
77/77 [=====] - 0s 1ms/step - loss: 0.6036 - accuracy: 0.6987
Epoch 49/50
77/77 [=====] - 0s 1ms/step - loss: 0.5904 - accuracy: 0.7020
Epoch 50/50
77/77 [=====] - 0s 1ms/step - loss: 0.5908 - accuracy: 0.7199
20/20 [=====] - 0s 1ms/step - loss: 0.6250 - accuracy: 0.6753
Epoch 1/50
77/77 [=====] - 0s 1ms/step - loss: 2.7621 - accuracy: 0.6450
Epoch 2/50
77/77 [=====] - 0s 1ms/step - loss: 1.6366 - accuracy: 0.6661
Epoch 3/50
77/77 [=====] - 0s 1ms/step - loss: 1.3639 - accuracy: 0.6580
Epoch 4/50
77/77 [=====] - 0s 1ms/step - loss: 1.1666 - accuracy: 0.6564
Epoch 5/50
77/77 [=====] - 0s 1ms/step - loss: 1.0247 - accuracy: 0.6580
Epoch 6/50
77/77 [=====] - 0s 2ms/step - loss: 0.9213 - accuracy: 0.6515
Epoch 7/50
77/77 [=====] - 0s 2ms/step - loss: 0.8500 - accuracy: 0.6694
Epoch 8/50
77/77 [=====] - 0s 1ms/step - loss: 0.7979 - accuracy: 0.6580
Epoch 9/50
77/77 [=====] - 0s 1ms/step - loss: 0.7543 - accuracy: 0.6596
Epoch 10/50
77/77 [=====] - 0s 1ms/step - loss: 0.7213 - accuracy: 0.6710
Epoch 11/50
77/77 [=====] - 0s 1ms/step - loss: 0.6990 - accuracy: 0.6694
Epoch 12/50
77/77 [=====] - 0s 1ms/step - loss: 0.6860 - accuracy: 0.6661
Epoch 13/50
77/77 [=====] - 0s 1ms/step - loss: 0.6680 - accuracy: 0.6661
Epoch 14/50
77/77 [=====] - 0s 1ms/step - loss: 0.6621 - accuracy: 0.6726
Epoch 15/50
77/77 [=====] - 0s 1ms/step - loss: 0.6564 - accuracy: 0.6710
Epoch 16/50
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77/77 [=====] - 0s 1ms/step - loss: 0.6483 - accuracy: 0.6726
Epoch 17/50
77/77 [=====] - 0s 1ms/step - loss: 0.6521 - accuracy: 0.6612
Epoch 18/50
77/77 [=====] - 0s 1ms/step - loss: 0.6281 - accuracy: 0.6645
Epoch 19/50
77/77 [=====] - 0s 1ms/step - loss: 0.6340 - accuracy: 0.6580
Epoch 20/50
77/77 [=====] - 0s 1ms/step - loss: 0.6388 - accuracy: 0.6629
Epoch 21/50
77/77 [=====] - 0s 1ms/step - loss: 0.6176 - accuracy: 0.6792
Epoch 22/50
77/77 [=====] - 0s 1ms/step - loss: 0.6293 - accuracy: 0.6743
Epoch 23/50
77/77 [=====] - 0s 999us/step - loss: 0.6355 - accuracy: 0.6694
Epoch 24/50
77/77 [=====] - 0s 1ms/step - loss: 0.6301 - accuracy: 0.6759
Epoch 25/50
77/77 [=====] - 0s 1ms/step - loss: 0.6217 - accuracy: 0.6678
Epoch 26/50
77/77 [=====] - 0s 1ms/step - loss: 0.6314 - accuracy: 0.6694
Epoch 27/50
77/77 [=====] - 0s 1ms/step - loss: 0.6226 - accuracy: 0.6775
Epoch 28/50
77/77 [=====] - 0s 1ms/step - loss: 0.6298 - accuracy: 0.6645
Epoch 29/50
77/77 [=====] - 0s 1ms/step - loss: 0.6253 - accuracy: 0.6629
Epoch 30/50
77/77 [=====] - 0s 1ms/step - loss: 0.6152 - accuracy: 0.6710
Epoch 31/50
77/77 [=====] - 0s 1ms/step - loss: 0.6187 - accuracy: 0.6743
Epoch 32/50
77/77 [=====] - 0s 2ms/step - loss: 0.6200 - accuracy: 0.6906
Epoch 33/50
77/77 [=====] - 0s 991us/step - loss: 0.6328 - accuracy: 0.6726
Epoch 34/50
77/77 [=====] - 0s 993us/step - loss: 0.6288 - accuracy: 0.6547
Epoch 35/50
77/77 [=====] - 0s 1ms/step - loss: 0.6270 - accuracy: 0.6840
Epoch 36/50
77/77 [=====] - 0s 1ms/step - loss: 0.6213 - accuracy: 0.6792
Epoch 37/50
77/77 [=====] - 0s 1ms/step - loss: 0.6133 - accuracy: 0.6938
Epoch 38/50
77/77 [=====] - 0s 1ms/step - loss: 0.6199 - accuracy: 0.6857
Epoch 39/50
77/77 [=====] - 0s 1ms/step - loss: 0.6320 - accuracy: 0.6808
Epoch 40/50
77/77 [=====] - 0s 1ms/step - loss: 0.6319 - accuracy: 0.6840
Epoch 41/50
77/77 [=====] - 0s 1ms/step - loss: 0.6133 - accuracy: 0.6824
Epoch 42/50
77/77 [=====] - 0s 1ms/step - loss: 0.6144 - accuracy: 0.6938
Epoch 43/50
77/77 [=====] - 0s 1ms/step - loss: 0.6126 - accuracy: 0.6889
Epoch 44/50
77/77 [=====] - 0s 1ms/step - loss: 0.6257 - accuracy: 0.6889
Epoch 45/50
77/77 [=====] - 0s 1ms/step - loss: 0.6186 - accuracy: 0.6873
Epoch 46/50
77/77 [=====] - 0s 1ms/step - loss: 0.6226 - accuracy: 0.6857
Epoch 47/50
77/77 [=====] - 0s 1ms/step - loss: 0.6119 - accuracy: 0.6873
Epoch 48/50
77/77 [=====] - 0s 1ms/step - loss: 0.6095 - accuracy: 0.6954
Epoch 49/50
77/77 [=====] - 0s 1ms/step - loss: 0.6111 - accuracy: 0.6824
Epoch 50/50
77/77 [=====] - 0s 1ms/step - loss: 0.6182 - accuracy: 0.6775
20/20 [=====] - 0s 1ms/step - loss: 0.6335 - accuracy: 0.6688
Epoch 1/50
77/77 [=====] - 0s 1ms/step - loss: 3.0745 - accuracy: 0.5415
Epoch 2/50
77/77 [=====] - 0s 1ms/step - loss: 1.8825 - accuracy: 0.6244
Epoch 3/50
77/77 [=====] - 0s 1ms/step - loss: 1.5557 - accuracy: 0.6293
Epoch 4/50
77/77 [=====] - 0s 1ms/step - loss: 1.3163 - accuracy: 0.6276
Epoch 5/50
77/77 [=====] - 0s 1ms/step - loss: 1.1360 - accuracy: 0.6472
Epoch 6/50
77/77 [=====] - 0s 1ms/step - loss: 1.0068 - accuracy: 0.6455
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Epoch 7/50
77/77 [=====] - 0s 1ms/step - loss: 0.9110 - accuracy: 0.6472
Epoch 8/50
77/77 [=====] - 0s 1ms/step - loss: 0.8415 - accuracy: 0.6390
Epoch 9/50
77/77 [=====] - 0s 1ms/step - loss: 0.7917 - accuracy: 0.6341
Epoch 10/50
77/77 [=====] - 0s 2ms/step - loss: 0.7543 - accuracy: 0.6423
Epoch 11/50
77/77 [=====] - 0s 966us/step - loss: 0.7260 - accuracy: 0.6569
Epoch 12/50
77/77 [=====] - 0s 985us/step - loss: 0.7043 - accuracy: 0.6488
Epoch 13/50
77/77 [=====] - 0s 1ms/step - loss: 0.6840 - accuracy: 0.6520
Epoch 14/50
77/77 [=====] - 0s 1ms/step - loss: 0.6743 - accuracy: 0.6537
Epoch 15/50
77/77 [=====] - 0s 1ms/step - loss: 0.6656 - accuracy: 0.6504
Epoch 16/50
77/77 [=====] - 0s 1ms/step - loss: 0.6566 - accuracy: 0.6374
Epoch 17/50
77/77 [=====] - 0s 1ms/step - loss: 0.6513 - accuracy: 0.6585
Epoch 18/50
77/77 [=====] - 0s 1ms/step - loss: 0.6449 - accuracy: 0.6585
Epoch 19/50
77/77 [=====] - 0s 1ms/step - loss: 0.6404 - accuracy: 0.6683
Epoch 20/50
77/77 [=====] - 0s 1ms/step - loss: 0.6345 - accuracy: 0.6748
Epoch 21/50
77/77 [=====] - 0s 1ms/step - loss: 0.6349 - accuracy: 0.6585
Epoch 22/50
77/77 [=====] - 0s 1ms/step - loss: 0.6319 - accuracy: 0.6585
Epoch 23/50
77/77 [=====] - 0s 1ms/step - loss: 0.6320 - accuracy: 0.6715
Epoch 24/50
77/77 [=====] - 0s 909us/step - loss: 0.6347 - accuracy: 0.6650
Epoch 25/50
77/77 [=====] - 0s 1ms/step - loss: 0.6306 - accuracy: 0.6537
Epoch 26/50
77/77 [=====] - 0s 1ms/step - loss: 0.6363 - accuracy: 0.6585
Epoch 27/50
77/77 [=====] - 0s 1ms/step - loss: 0.6306 - accuracy: 0.6764
Epoch 28/50
77/77 [=====] - 0s 1ms/step - loss: 0.6274 - accuracy: 0.6846
Epoch 29/50
77/77 [=====] - 0s 1ms/step - loss: 0.6311 - accuracy: 0.6667
Epoch 30/50
77/77 [=====] - 0s 1ms/step - loss: 0.6285 - accuracy: 0.6618
Epoch 31/50
77/77 [=====] - 0s 1ms/step - loss: 0.6271 - accuracy: 0.6407
Epoch 32/50
77/77 [=====] - 0s 1ms/step - loss: 0.6265 - accuracy: 0.6667
Epoch 33/50
77/77 [=====] - 0s 1ms/step - loss: 0.6225 - accuracy: 0.6992
Epoch 34/50
77/77 [=====] - 0s 1ms/step - loss: 0.6418 - accuracy: 0.6374
Epoch 35/50
77/77 [=====] - 0s 1ms/step - loss: 0.6301 - accuracy: 0.6569
Epoch 36/50
77/77 [=====] - 0s 1ms/step - loss: 0.6227 - accuracy: 0.6715
Epoch 37/50
77/77 [=====] - 0s 1ms/step - loss: 0.6308 - accuracy: 0.6683
Epoch 38/50
77/77 [=====] - 0s 2ms/step - loss: 0.6317 - accuracy: 0.6634
Epoch 39/50
77/77 [=====] - 0s 1ms/step - loss: 0.6345 - accuracy: 0.6569
Epoch 40/50
77/77 [=====] - 0s 1ms/step - loss: 0.6260 - accuracy: 0.6650
Epoch 41/50
77/77 [=====] - 0s 1ms/step - loss: 0.6187 - accuracy: 0.6813
Epoch 42/50
77/77 [=====] - 0s 1ms/step - loss: 0.6178 - accuracy: 0.6732
Epoch 43/50
77/77 [=====] - 0s 1ms/step - loss: 0.6180 - accuracy: 0.6992
Epoch 44/50
77/77 [=====] - 0s 1ms/step - loss: 0.6229 - accuracy: 0.6699
Epoch 45/50
77/77 [=====] - 0s 1ms/step - loss: 0.6230 - accuracy: 0.6732
Epoch 46/50
77/77 [=====] - 0s 1ms/step - loss: 0.6218 - accuracy: 0.6829
Epoch 47/50
77/77 [=====] - 0s 1ms/step - loss: 0.6268 - accuracy: 0.6732

Epoch 48/50
77/77 [=====] - 0s 1ms/step - loss: 0.6221 - accuracy: 0.6667
Epoch 49/50
77/77 [=====] - 0s 1ms/step - loss: 0.6298 - accuracy: 0.6683
Epoch 50/50
77/77 [=====] - 0s 1ms/step - loss: 0.6182 - accuracy: 0.6585
20/20 [=====] - 0s 1ms/step - loss: 0.6035 - accuracy: 0.7320
Epoch 1/50
77/77 [=====] - 0s 1ms/step - loss: 2.7956 - accuracy: 0.6016
Epoch 2/50
77/77 [=====] - 0s 1ms/step - loss: 1.5897 - accuracy: 0.6407
Epoch 3/50
77/77 [=====] - 0s 1ms/step - loss: 1.3322 - accuracy: 0.6390
Epoch 4/50
77/77 [=====] - 0s 1ms/step - loss: 1.1504 - accuracy: 0.6488
Epoch 5/50
77/77 [=====] - 0s 2ms/step - loss: 1.0077 - accuracy: 0.6569
Epoch 6/50
77/77 [=====] - 0s 1ms/step - loss: 0.9111 - accuracy: 0.6569
Epoch 7/50
77/77 [=====] - 0s 1ms/step - loss: 0.8370 - accuracy: 0.6585
Epoch 8/50
77/77 [=====] - 0s 1ms/step - loss: 0.7874 - accuracy: 0.6634
Epoch 9/50
77/77 [=====] - 0s 2ms/step - loss: 0.7456 - accuracy: 0.6520
Epoch 10/50
77/77 [=====] - 0s 2ms/step - loss: 0.7197 - accuracy: 0.6455
Epoch 11/50
77/77 [=====] - 0s 1ms/step - loss: 0.6951 - accuracy: 0.6569
Epoch 12/50
77/77 [=====] - 0s 1ms/step - loss: 0.6866 - accuracy: 0.6667
Epoch 13/50
77/77 [=====] - 0s 1ms/step - loss: 0.6685 - accuracy: 0.6602
Epoch 14/50
77/77 [=====] - 0s 1ms/step - loss: 0.6582 - accuracy: 0.6748
Epoch 15/50
77/77 [=====] - 0s 1ms/step - loss: 0.6510 - accuracy: 0.6829
Epoch 16/50
77/77 [=====] - 0s 1ms/step - loss: 0.6534 - accuracy: 0.6732
Epoch 17/50
77/77 [=====] - 0s 1ms/step - loss: 0.6431 - accuracy: 0.6878
Epoch 18/50
77/77 [=====] - 0s 1ms/step - loss: 0.6450 - accuracy: 0.6846
Epoch 19/50
77/77 [=====] - 0s 1ms/step - loss: 0.6408 - accuracy: 0.6894
Epoch 20/50
77/77 [=====] - 0s 1ms/step - loss: 0.6420 - accuracy: 0.6715
Epoch 21/50
77/77 [=====] - 0s 2ms/step - loss: 0.6426 - accuracy: 0.6764
Epoch 22/50
77/77 [=====] - 0s 1ms/step - loss: 0.6365 - accuracy: 0.6699
Epoch 23/50
77/77 [=====] - 0s 1ms/step - loss: 0.6316 - accuracy: 0.6911
Epoch 24/50
77/77 [=====] - 0s 1ms/step - loss: 0.6352 - accuracy: 0.6846
Epoch 25/50
77/77 [=====] - 0s 1ms/step - loss: 0.6311 - accuracy: 0.6829
Epoch 26/50
77/77 [=====] - 0s 1ms/step - loss: 0.6353 - accuracy: 0.6862
Epoch 27/50
77/77 [=====] - 0s 1ms/step - loss: 0.6310 - accuracy: 0.6976
Epoch 28/50
77/77 [=====] - 0s 1ms/step - loss: 0.6206 - accuracy: 0.7024
Epoch 29/50
77/77 [=====] - 0s 1ms/step - loss: 0.6248 - accuracy: 0.6992
Epoch 30/50
77/77 [=====] - 0s 1ms/step - loss: 0.6260 - accuracy: 0.6959
Epoch 31/50
77/77 [=====] - 0s 1ms/step - loss: 0.6215 - accuracy: 0.6894
Epoch 32/50
77/77 [=====] - 0s 1ms/step - loss: 0.6308 - accuracy: 0.6634
Epoch 33/50
77/77 [=====] - 0s 1ms/step - loss: 0.6260 - accuracy: 0.6878
Epoch 34/50
77/77 [=====] - 0s 1ms/step - loss: 0.6272 - accuracy: 0.6862
Epoch 35/50
77/77 [=====] - 0s 1ms/step - loss: 0.6310 - accuracy: 0.6943
Epoch 36/50
77/77 [=====] - 0s 2ms/step - loss: 0.6201 - accuracy: 0.6602
Epoch 37/50
77/77 [=====] - 0s 1ms/step - loss: 0.6253 - accuracy: 0.6813
Epoch 38/50

77/77 [=====] - 0s 1ms/step - loss: 0.6199 - accuracy: 0.6927
Epoch 39/50
77/77 [=====] - 0s 1ms/step - loss: 0.6200 - accuracy: 0.6829
Epoch 40/50
77/77 [=====] - 0s 2ms/step - loss: 0.6210 - accuracy: 0.7008
Epoch 41/50
77/77 [=====] - 0s 1ms/step - loss: 0.6195 - accuracy: 0.6797
Epoch 42/50
77/77 [=====] - 0s 1ms/step - loss: 0.6182 - accuracy: 0.6862
Epoch 43/50
77/77 [=====] - 0s 1ms/step - loss: 0.6162 - accuracy: 0.6878
Epoch 44/50
77/77 [=====] - 0s 1ms/step - loss: 0.6305 - accuracy: 0.6813
Epoch 45/50
77/77 [=====] - 0s 1ms/step - loss: 0.6192 - accuracy: 0.6862
Epoch 46/50
77/77 [=====] - 0s 1ms/step - loss: 0.6110 - accuracy: 0.6862
Epoch 47/50
77/77 [=====] - 0s 1ms/step - loss: 0.6163 - accuracy: 0.6894
Epoch 48/50
77/77 [=====] - 0s 1ms/step - loss: 0.6174 - accuracy: 0.6959
Epoch 49/50
77/77 [=====] - 0s 1ms/step - loss: 0.6148 - accuracy: 0.6862
Epoch 50/50
77/77 [=====] - 0s 1ms/step - loss: 0.6161 - accuracy: 0.6878
20/20 [=====] - 0s 920us/step - loss: 0.6508 - accuracy: 0.6471
Epoch 1/50
77/77 [=====] - 0s 1ms/step - loss: 4.7222 - accuracy: 0.6107
Epoch 2/50
77/77 [=====] - 0s 1ms/step - loss: 1.3795 - accuracy: 0.6531
Epoch 3/50
77/77 [=====] - 0s 1ms/step - loss: 0.8168 - accuracy: 0.6515
Epoch 4/50
77/77 [=====] - 0s 1ms/step - loss: 0.6969 - accuracy: 0.6515
Epoch 5/50
77/77 [=====] - 0s 1ms/step - loss: 0.6662 - accuracy: 0.6515
Epoch 6/50
77/77 [=====] - 0s 1ms/step - loss: 0.6561 - accuracy: 0.6515
Epoch 7/50
77/77 [=====] - 0s 1ms/step - loss: 0.6553 - accuracy: 0.6515
Epoch 8/50
77/77 [=====] - 0s 1ms/step - loss: 0.6525 - accuracy: 0.6515
Epoch 9/50
77/77 [=====] - 0s 2ms/step - loss: 0.6500 - accuracy: 0.6515
Epoch 10/50
77/77 [=====] - 0s 2ms/step - loss: 0.6505 - accuracy: 0.6515
Epoch 11/50
77/77 [=====] - 0s 1ms/step - loss: 0.6487 - accuracy: 0.6515
Epoch 12/50
77/77 [=====] - 0s 1ms/step - loss: 0.6484 - accuracy: 0.6515
Epoch 13/50
77/77 [=====] - 0s 1ms/step - loss: 0.6472 - accuracy: 0.6515
Epoch 14/50
77/77 [=====] - 0s 1ms/step - loss: 0.6465 - accuracy: 0.6515
Epoch 15/50
77/77 [=====] - 0s 1ms/step - loss: 0.6451 - accuracy: 0.6515
Epoch 16/50
77/77 [=====] - 0s 1ms/step - loss: 0.6455 - accuracy: 0.6515
Epoch 17/50
77/77 [=====] - 0s 1ms/step - loss: 0.6447 - accuracy: 0.6515
Epoch 18/50
77/77 [=====] - 0s 1ms/step - loss: 0.6447 - accuracy: 0.6515
Epoch 19/50
77/77 [=====] - 0s 1ms/step - loss: 0.6442 - accuracy: 0.6515
Epoch 20/50
77/77 [=====] - 0s 1ms/step - loss: 0.6443 - accuracy: 0.6515
Epoch 21/50
77/77 [=====] - 0s 1ms/step - loss: 0.6437 - accuracy: 0.6515
Epoch 22/50
77/77 [=====] - 0s 1ms/step - loss: 0.6440 - accuracy: 0.6515
Epoch 23/50
77/77 [=====] - 0s 1ms/step - loss: 0.6438 - accuracy: 0.6515
Epoch 24/50
77/77 [=====] - 0s 2ms/step - loss: 0.6424 - accuracy: 0.6515
Epoch 25/50
77/77 [=====] - 0s 2ms/step - loss: 0.6439 - accuracy: 0.6515
Epoch 26/50
77/77 [=====] - 0s 2ms/step - loss: 0.6418 - accuracy: 0.6515
Epoch 27/50
77/77 [=====] - 0s 2ms/step - loss: 0.6428 - accuracy: 0.6515
Epoch 28/50
77/77 [=====] - 0s 2ms/step - loss: 0.6384 - accuracy: 0.6515

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Epoch 29/50
77/77 [=====] - 0s 2ms/step - loss: 0.6407 - accuracy: 0.6482
Epoch 30/50
77/77 [=====] - 0s 2ms/step - loss: 0.6389 - accuracy: 0.6596
Epoch 31/50
77/77 [=====] - 0s 3ms/step - loss: 0.6411 - accuracy: 0.6515
Epoch 32/50
77/77 [=====] - 0s 3ms/step - loss: 0.6407 - accuracy: 0.6482
Epoch 33/50
77/77 [=====] - 0s 2ms/step - loss: 0.6401 - accuracy: 0.6515
Epoch 34/50
77/77 [=====] - 0s 1ms/step - loss: 0.6351 - accuracy: 0.6645
Epoch 35/50
77/77 [=====] - 0s 1ms/step - loss: 0.6353 - accuracy: 0.6498
Epoch 36/50
77/77 [=====] - 0s 1ms/step - loss: 0.6401 - accuracy: 0.6629
Epoch 37/50
77/77 [=====] - 0s 1ms/step - loss: 0.6391 - accuracy: 0.6482
Epoch 38/50
77/77 [=====] - 0s 1ms/step - loss: 0.6339 - accuracy: 0.6531
Epoch 39/50
77/77 [=====] - 0s 1ms/step - loss: 0.6388 - accuracy: 0.6482
Epoch 40/50
77/77 [=====] - 0s 2ms/step - loss: 0.6414 - accuracy: 0.6547
Epoch 41/50
77/77 [=====] - 0s 1ms/step - loss: 0.6382 - accuracy: 0.6596
Epoch 42/50
77/77 [=====] - 0s 1ms/step - loss: 0.6378 - accuracy: 0.6759
Epoch 43/50
77/77 [=====] - 0s 1ms/step - loss: 0.6391 - accuracy: 0.6547
Epoch 44/50
77/77 [=====] - 0s 1ms/step - loss: 0.6381 - accuracy: 0.6433
Epoch 45/50
77/77 [=====] - 0s 1ms/step - loss: 0.6404 - accuracy: 0.6629
Epoch 46/50
77/77 [=====] - 0s 1ms/step - loss: 0.6420 - accuracy: 0.6580
Epoch 47/50
77/77 [=====] - 0s 1ms/step - loss: 0.6338 - accuracy: 0.6726
Epoch 48/50
77/77 [=====] - 0s 1ms/step - loss: 0.6319 - accuracy: 0.6661
Epoch 49/50
77/77 [=====] - 0s 2ms/step - loss: 0.6280 - accuracy: 0.6710
Epoch 50/50
77/77 [=====] - 0s 1ms/step - loss: 0.6413 - accuracy: 0.6710
20/20 [=====] - 0s 1ms/step - loss: 0.6186 - accuracy: 0.6948
Epoch 1/50
77/77 [=====] - 1s 1ms/step - loss: 5.3829 - accuracy: 0.6498
Epoch 2/50
77/77 [=====] - 0s 1ms/step - loss: 1.5950 - accuracy: 0.6629
Epoch 3/50
77/77 [=====] - 0s 2ms/step - loss: 0.8555 - accuracy: 0.6694
Epoch 4/50
77/77 [=====] - 0s 2ms/step - loss: 0.6937 - accuracy: 0.6678
Epoch 5/50
77/77 [=====] - 0s 1ms/step - loss: 0.6566 - accuracy: 0.6678
Epoch 6/50
77/77 [=====] - 0s 2ms/step - loss: 0.6454 - accuracy: 0.6678
Epoch 7/50
77/77 [=====] - 0s 1ms/step - loss: 0.6416 - accuracy: 0.6678
Epoch 8/50
77/77 [=====] - 0s 1ms/step - loss: 0.6397 - accuracy: 0.6678
Epoch 9/50
77/77 [=====] - 0s 1ms/step - loss: 0.6385 - accuracy: 0.6678
Epoch 10/50
77/77 [=====] - 0s 1ms/step - loss: 0.6377 - accuracy: 0.6678
Epoch 11/50
77/77 [=====] - 0s 1ms/step - loss: 0.6371 - accuracy: 0.6678
Epoch 12/50
77/77 [=====] - 0s 1ms/step - loss: 0.6368 - accuracy: 0.6678
Epoch 13/50
77/77 [=====] - 0s 1ms/step - loss: 0.6365 - accuracy: 0.6678
Epoch 14/50
77/77 [=====] - 0s 2ms/step - loss: 0.6363 - accuracy: 0.6678
Epoch 15/50
77/77 [=====] - 0s 1ms/step - loss: 0.6362 - accuracy: 0.6678
Epoch 16/50
77/77 [=====] - 0s 1ms/step - loss: 0.6361 - accuracy: 0.6678
Epoch 17/50
77/77 [=====] - 0s 1ms/step - loss: 0.6360 - accuracy: 0.6678
Epoch 18/50
77/77 [=====] - 0s 1ms/step - loss: 0.6360 - accuracy: 0.6678
Epoch 19/50
```

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77/77 [=====] - 0s 1ms/step - loss: 0.6360 - accuracy: 0.6678
Epoch 20/50
77/77 [=====] - 0s 1ms/step - loss: 0.6360 - accuracy: 0.6678
Epoch 21/50
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 22/50
77/77 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 23/50
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 24/50
77/77 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 25/50
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 26/50
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 27/50
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 28/50
77/77 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 29/50
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 30/50
77/77 [=====] - 0s 1ms/step - loss: 0.6360 - accuracy: 0.6678
Epoch 31/50
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 32/50
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 33/50
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 34/50
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 35/50
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 36/50
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 37/50
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 38/50
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 39/50
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 40/50
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 41/50
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 42/50
77/77 [=====] - 0s 1ms/step - loss: 0.6358 - accuracy: 0.6678
Epoch 43/50
77/77 [=====] - 0s 1ms/step - loss: 0.6357 - accuracy: 0.6678
Epoch 44/50
77/77 [=====] - 0s 1ms/step - loss: 0.6357 - accuracy: 0.6678
Epoch 45/50
77/77 [=====] - 0s 1ms/step - loss: 0.6356 - accuracy: 0.6678
Epoch 46/50
77/77 [=====] - 0s 1ms/step - loss: 0.6353 - accuracy: 0.6678
Epoch 47/50
77/77 [=====] - 0s 1ms/step - loss: 0.6349 - accuracy: 0.6678
Epoch 48/50
77/77 [=====] - 0s 1ms/step - loss: 0.6346 - accuracy: 0.6678
Epoch 49/50
77/77 [=====] - 0s 1ms/step - loss: 0.6339 - accuracy: 0.6694
Epoch 50/50
77/77 [=====] - 0s 2ms/step - loss: 0.6338 - accuracy: 0.6661
20/20 [=====] - 0s 1ms/step - loss: 0.6881 - accuracy: 0.5844
Epoch 1/50
77/77 [=====] - 0s 1ms/step - loss: 4.5273 - accuracy: 0.6303
Epoch 2/50
77/77 [=====] - 0s 1ms/step - loss: 1.4008 - accuracy: 0.6564
Epoch 3/50
77/77 [=====] - 0s 1ms/step - loss: 0.8208 - accuracy: 0.6564
Epoch 4/50
77/77 [=====] - 0s 1ms/step - loss: 0.6936 - accuracy: 0.6564
Epoch 5/50
77/77 [=====] - 0s 1ms/step - loss: 0.6640 - accuracy: 0.6564
Epoch 6/50
77/77 [=====] - 0s 1ms/step - loss: 0.6548 - accuracy: 0.6564
Epoch 7/50
77/77 [=====] - 0s 1ms/step - loss: 0.6508 - accuracy: 0.6564
Epoch 8/50
77/77 [=====] - 0s 1ms/step - loss: 0.6484 - accuracy: 0.6564
Epoch 9/50
77/77 [=====] - 0s 1ms/step - loss: 0.6468 - accuracy: 0.6564
```


[illegible]

```
20/20 [=====] - 0s 1ms/step - loss: 0.6602 - accuracy: 0.6299
Epoch 1/50
77/77 [=====] - 0s 1ms/step - loss: 5.0338 - accuracy: 0.6260
Epoch 2/50
77/77 [=====] - 0s 1ms/step - loss: 1.5900 - accuracy: 0.6276
Epoch 3/50
77/77 [=====] - 0s 1ms/step - loss: 0.8724 - accuracy: 0.6276
Epoch 4/50
77/77 [=====] - 0s 1ms/step - loss: 0.7186 - accuracy: 0.6325
Epoch 5/50
77/77 [=====] - 0s 1ms/step - loss: 0.6829 - accuracy: 0.6276
Epoch 6/50
77/77 [=====] - 0s 2ms/step - loss: 0.6728 - accuracy: 0.6276
Epoch 7/50
77/77 [=====] - 0s 1ms/step - loss: 0.6681 - accuracy: 0.6276
Epoch 8/50
77/77 [=====] - 0s 1ms/step - loss: 0.6657 - accuracy: 0.6276
Epoch 9/50
77/77 [=====] - 0s 1ms/step - loss: 0.6639 - accuracy: 0.6276
Epoch 10/50
77/77 [=====] - 0s 1ms/step - loss: 0.6627 - accuracy: 0.6276
Epoch 11/50
77/77 [=====] - 0s 1ms/step - loss: 0.6619 - accuracy: 0.6276
Epoch 12/50
77/77 [=====] - 0s 2ms/step - loss: 0.6614 - accuracy: 0.6276
Epoch 13/50
77/77 [=====] - 0s 2ms/step - loss: 0.6611 - accuracy: 0.6276
Epoch 14/50
77/77 [=====] - 0s 1ms/step - loss: 0.6608 - accuracy: 0.6276
Epoch 15/50
77/77 [=====] - 0s 1ms/step - loss: 0.6606 - accuracy: 0.6276
Epoch 16/50
77/77 [=====] - 0s 1ms/step - loss: 0.6605 - accuracy: 0.6276
Epoch 17/50
77/77 [=====] - 0s 1ms/step - loss: 0.6603 - accuracy: 0.6276
Epoch 18/50
77/77 [=====] - 0s 1ms/step - loss: 0.6603 - accuracy: 0.6276
Epoch 19/50
77/77 [=====] - 0s 981us/step - loss: 0.6602 - accuracy: 0.6276
Epoch 20/50
77/77 [=====] - 0s 2ms/step - loss: 0.6602 - accuracy: 0.6276
Epoch 21/50
77/77 [=====] - 0s 1ms/step - loss: 0.6601 - accuracy: 0.6276
Epoch 22/50
77/77 [=====] - 0s 1ms/step - loss: 0.6600 - accuracy: 0.6276
Epoch 23/50
77/77 [=====] - 0s 1ms/step - loss: 0.6601 - accuracy: 0.6276
Epoch 24/50
77/77 [=====] - 0s 1ms/step - loss: 0.6600 - accuracy: 0.6276
Epoch 25/50
77/77 [=====] - 0s 1ms/step - loss: 0.6599 - accuracy: 0.6276
Epoch 26/50
77/77 [=====] - 0s 1ms/step - loss: 0.6599 - accuracy: 0.6276
Epoch 27/50
77/77 [=====] - 0s 1ms/step - loss: 0.6599 - accuracy: 0.6276
Epoch 28/50
77/77 [=====] - 0s 1ms/step - loss: 0.6598 - accuracy: 0.6276
Epoch 29/50
77/77 [=====] - 0s 1ms/step - loss: 0.6599 - accuracy: 0.6276
Epoch 30/50
77/77 [=====] - 0s 1ms/step - loss: 0.6599 - accuracy: 0.6276
Epoch 31/50
77/77 [=====] - 0s 1ms/step - loss: 0.6600 - accuracy: 0.6276
Epoch 32/50
77/77 [=====] - 0s 2ms/step - loss: 0.6599 - accuracy: 0.6276
Epoch 33/50
77/77 [=====] - 0s 1ms/step - loss: 0.6598 - accuracy: 0.6276
Epoch 34/50
77/77 [=====] - 0s 1ms/step - loss: 0.6598 - accuracy: 0.6276
Epoch 35/50
77/77 [=====] - 0s 1ms/step - loss: 0.6598 - accuracy: 0.6276
Epoch 36/50
77/77 [=====] - 0s 1ms/step - loss: 0.6599 - accuracy: 0.6276
Epoch 37/50
77/77 [=====] - 0s 1ms/step - loss: 0.6595 - accuracy: 0.6276
Epoch 38/50
77/77 [=====] - 0s 1ms/step - loss: 0.6600 - accuracy: 0.6276
Epoch 39/50
77/77 [=====] - 0s 1ms/step - loss: 0.6597 - accuracy: 0.6276
Epoch 40/50
77/77 [=====] - 0s 1ms/step - loss: 0.6596 - accuracy: 0.6276
Epoch 41/50
```

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77/77 [=====] - 0s 1ms/step - loss: 0.6597 - accuracy: 0.6276
Epoch 42/50
77/77 [=====] - 0s 1ms/step - loss: 0.6594 - accuracy: 0.6276
Epoch 43/50
77/77 [=====] - 0s 1ms/step - loss: 0.6596 - accuracy: 0.6276
Epoch 44/50
77/77 [=====] - 0s 1ms/step - loss: 0.6596 - accuracy: 0.6276
Epoch 45/50
77/77 [=====] - 0s 1ms/step - loss: 0.6595 - accuracy: 0.6276
Epoch 46/50
77/77 [=====] - 0s 1ms/step - loss: 0.6593 - accuracy: 0.6276
Epoch 47/50
77/77 [=====] - 0s 1ms/step - loss: 0.6591 - accuracy: 0.6276
Epoch 48/50
77/77 [=====] - 0s 1ms/step - loss: 0.6599 - accuracy: 0.6276
Epoch 49/50
77/77 [=====] - 0s 1ms/step - loss: 0.6595 - accuracy: 0.6276
Epoch 50/50
77/77 [=====] - 0s 1ms/step - loss: 0.6596 - accuracy: 0.6276
20/20 [=====] - 0s 1ms/step - loss: 0.5953 - accuracy: 0.7451
Epoch 1/50
77/77 [=====] - 0s 1ms/step - loss: 4.9936 - accuracy: 0.5935
Epoch 2/50
77/77 [=====] - 0s 1ms/step - loss: 1.5051 - accuracy: 0.6537
Epoch 3/50
77/77 [=====] - 0s 1ms/step - loss: 0.8424 - accuracy: 0.6520
Epoch 4/50
77/77 [=====] - 0s 1ms/step - loss: 0.6969 - accuracy: 0.6520
Epoch 5/50
77/77 [=====] - 0s 1ms/step - loss: 0.6597 - accuracy: 0.6520
Epoch 6/50
77/77 [=====] - 0s 1ms/step - loss: 0.6599 - accuracy: 0.6520
Epoch 7/50
77/77 [=====] - 0s 1ms/step - loss: 0.6531 - accuracy: 0.6520
Epoch 8/50
77/77 [=====] - 0s 1ms/step - loss: 0.6496 - accuracy: 0.6520
Epoch 9/50
77/77 [=====] - 0s 1ms/step - loss: 0.6471 - accuracy: 0.6520
Epoch 10/50
77/77 [=====] - 0s 1ms/step - loss: 0.6449 - accuracy: 0.6520
Epoch 11/50
77/77 [=====] - 0s 1ms/step - loss: 0.6437 - accuracy: 0.6520
Epoch 12/50
77/77 [=====] - 0s 1ms/step - loss: 0.6419 - accuracy: 0.6520
Epoch 13/50
77/77 [=====] - 0s 1ms/step - loss: 0.6405 - accuracy: 0.6520
Epoch 14/50
77/77 [=====] - 0s 1ms/step - loss: 0.6407 - accuracy: 0.6520
Epoch 15/50
77/77 [=====] - 0s 1ms/step - loss: 0.6406 - accuracy: 0.6520
Epoch 16/50
77/77 [=====] - 0s 1ms/step - loss: 0.6412 - accuracy: 0.6520
Epoch 17/50
77/77 [=====] - 0s 1ms/step - loss: 0.6421 - accuracy: 0.6520
Epoch 18/50
77/77 [=====] - 0s 1ms/step - loss: 0.6391 - accuracy: 0.6520
Epoch 19/50
77/77 [=====] - 0s 2ms/step - loss: 0.6366 - accuracy: 0.6520
Epoch 20/50
77/77 [=====] - 0s 2ms/step - loss: 0.6395 - accuracy: 0.6520
Epoch 21/50
77/77 [=====] - 0s 1ms/step - loss: 0.6411 - accuracy: 0.6520
Epoch 22/50
77/77 [=====] - 0s 1ms/step - loss: 0.6355 - accuracy: 0.6520
Epoch 23/50
77/77 [=====] - 0s 1ms/step - loss: 0.6385 - accuracy: 0.6520
Epoch 24/50
77/77 [=====] - 0s 1ms/step - loss: 0.6385 - accuracy: 0.6520
Epoch 25/50
77/77 [=====] - 0s 1ms/step - loss: 0.6395 - accuracy: 0.6520
Epoch 26/50
77/77 [=====] - 0s 1ms/step - loss: 0.6328 - accuracy: 0.6520
Epoch 27/50
77/77 [=====] - 0s 1ms/step - loss: 0.6378 - accuracy: 0.6520
Epoch 28/50
77/77 [=====] - 0s 1ms/step - loss: 0.6311 - accuracy: 0.6520
Epoch 29/50
77/77 [=====] - 0s 1ms/step - loss: 0.6370 - accuracy: 0.6520
Epoch 30/50
77/77 [=====] - 0s 1ms/step - loss: 0.6411 - accuracy: 0.6520
Epoch 31/50
77/77 [=====] - 0s 1ms/step - loss: 0.6373 - accuracy: 0.6520
```

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Epoch 32/50
77/77 [=====] - 0s 2ms/step - loss: 0.6360 - accuracy: 0.6520
Epoch 33/50
77/77 [=====] - 0s 1ms/step - loss: 0.6404 - accuracy: 0.6520
Epoch 34/50
77/77 [=====] - 0s 1ms/step - loss: 0.6339 - accuracy: 0.6520
Epoch 35/50
77/77 [=====] - 0s 1ms/step - loss: 0.6387 - accuracy: 0.6520
Epoch 36/50
77/77 [=====] - 0s 1ms/step - loss: 0.6328 - accuracy: 0.6520
Epoch 37/50
77/77 [=====] - 0s 1ms/step - loss: 0.6348 - accuracy: 0.6520
Epoch 38/50
77/77 [=====] - 0s 1ms/step - loss: 0.6370 - accuracy: 0.6520
Epoch 39/50
77/77 [=====] - 0s 1ms/step - loss: 0.6269 - accuracy: 0.6520
Epoch 40/50
77/77 [=====] - 0s 1ms/step - loss: 0.6380 - accuracy: 0.6520
Epoch 41/50
77/77 [=====] - 0s 1ms/step - loss: 0.6312 - accuracy: 0.6520
Epoch 42/50
77/77 [=====] - 0s 2ms/step - loss: 0.6355 - accuracy: 0.6520
Epoch 43/50
77/77 [=====] - 0s 1ms/step - loss: 0.6422 - accuracy: 0.6520
Epoch 44/50
77/77 [=====] - 0s 1ms/step - loss: 0.6392 - accuracy: 0.6520
Epoch 45/50
77/77 [=====] - 0s 1ms/step - loss: 0.6405 - accuracy: 0.6520
Epoch 46/50
77/77 [=====] - 0s 1ms/step - loss: 0.6319 - accuracy: 0.6520
Epoch 47/50
77/77 [=====] - 0s 1ms/step - loss: 0.6456 - accuracy: 0.6520
Epoch 48/50
77/77 [=====] - 0s 1ms/step - loss: 0.6249 - accuracy: 0.6520
Epoch 49/50
77/77 [=====] - 0s 1ms/step - loss: 0.6419 - accuracy: 0.6520
Epoch 50/50
77/77 [=====] - 0s 1ms/step - loss: 0.6305 - accuracy: 0.6520
20/20 [=====] - 0s 1ms/step - loss: 0.6600 - accuracy: 0.6471
Epoch 1/50
77/77 [=====] - 0s 1ms/step - loss: 3.2690 - accuracy: 0.6417
Epoch 2/50
77/77 [=====] - 0s 1ms/step - loss: 1.7714 - accuracy: 0.6580
Epoch 3/50
77/77 [=====] - 0s 1ms/step - loss: 1.4656 - accuracy: 0.6612
Epoch 4/50
77/77 [=====] - 0s 1ms/step - loss: 1.2440 - accuracy: 0.6678
Epoch 5/50
77/77 [=====] - 0s 989us/step - loss: 1.0796 - accuracy: 0.6743
Epoch 6/50
77/77 [=====] - 0s 1ms/step - loss: 0.9609 - accuracy: 0.6792
Epoch 7/50
77/77 [=====] - 0s 1ms/step - loss: 0.8746 - accuracy: 0.6792
Epoch 8/50
77/77 [=====] - 0s 1ms/step - loss: 0.8098 - accuracy: 0.6743
Epoch 9/50
77/77 [=====] - 0s 2ms/step - loss: 0.7647 - accuracy: 0.6694
Epoch 10/50
77/77 [=====] - 0s 1ms/step - loss: 0.7291 - accuracy: 0.6759
Epoch 11/50
77/77 [=====] - 0s 1ms/step - loss: 0.7007 - accuracy: 0.6840
Epoch 12/50
77/77 [=====] - 0s 1ms/step - loss: 0.6794 - accuracy: 0.6743
Epoch 13/50
77/77 [=====] - 0s 2ms/step - loss: 0.6624 - accuracy: 0.6759
Epoch 14/50
77/77 [=====] - 0s 1ms/step - loss: 0.6575 - accuracy: 0.6661
Epoch 15/50
77/77 [=====] - 0s 1ms/step - loss: 0.6404 - accuracy: 0.6857
Epoch 16/50
77/77 [=====] - 0s 1ms/step - loss: 0.6404 - accuracy: 0.6938
Epoch 17/50
77/77 [=====] - 0s 1ms/step - loss: 0.6349 - accuracy: 0.6678
Epoch 18/50
77/77 [=====] - 0s 1ms/step - loss: 0.6279 - accuracy: 0.6840
Epoch 19/50
77/77 [=====] - 0s 2ms/step - loss: 0.6246 - accuracy: 0.6808
Epoch 20/50
77/77 [=====] - 0s 1ms/step - loss: 0.6299 - accuracy: 0.6808
Epoch 21/50
77/77 [=====] - 0s 1ms/step - loss: 0.6256 - accuracy: 0.6906
Epoch 22/50
```

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77/77 [=====] - 0s 1ms/step - loss: 0.6185 - accuracy: 0.6808
Epoch 23/50
77/77 [=====] - 0s 1ms/step - loss: 0.6205 - accuracy: 0.6824
Epoch 24/50
77/77 [=====] - 0s 1ms/step - loss: 0.6234 - accuracy: 0.6743
Epoch 25/50
77/77 [=====] - 0s 1ms/step - loss: 0.6227 - accuracy: 0.6840
Epoch 26/50
77/77 [=====] - 0s 1ms/step - loss: 0.6220 - accuracy: 0.6808
Epoch 27/50
77/77 [=====] - 0s 1ms/step - loss: 0.6095 - accuracy: 0.6938
Epoch 28/50
77/77 [=====] - 0s 2ms/step - loss: 0.6106 - accuracy: 0.6840
Epoch 29/50
77/77 [=====] - 0s 1ms/step - loss: 0.6094 - accuracy: 0.7020
Epoch 30/50
77/77 [=====] - 0s 1ms/step - loss: 0.6184 - accuracy: 0.6759
Epoch 31/50
77/77 [=====] - 0s 1ms/step - loss: 0.6180 - accuracy: 0.6987
Epoch 32/50
77/77 [=====] - 0s 1ms/step - loss: 0.6099 - accuracy: 0.6971
Epoch 33/50
77/77 [=====] - 0s 1ms/step - loss: 0.6114 - accuracy: 0.7052
Epoch 34/50
77/77 [=====] - 0s 1ms/step - loss: 0.6040 - accuracy: 0.7085
Epoch 35/50
77/77 [=====] - 0s 1ms/step - loss: 0.6014 - accuracy: 0.7150
Epoch 36/50
77/77 [=====] - 0s 1ms/step - loss: 0.6070 - accuracy: 0.7052
Epoch 37/50
77/77 [=====] - 0s 1ms/step - loss: 0.6151 - accuracy: 0.6938
Epoch 38/50
77/77 [=====] - 0s 1ms/step - loss: 0.6065 - accuracy: 0.6971
Epoch 39/50
77/77 [=====] - 0s 1ms/step - loss: 0.6122 - accuracy: 0.6938
Epoch 40/50
77/77 [=====] - 0s 1ms/step - loss: 0.6070 - accuracy: 0.6906
Epoch 41/50
77/77 [=====] - 0s 1ms/step - loss: 0.6081 - accuracy: 0.7020
Epoch 42/50
77/77 [=====] - 0s 1ms/step - loss: 0.6112 - accuracy: 0.6922
Epoch 43/50
77/77 [=====] - 0s 1ms/step - loss: 0.6115 - accuracy: 0.6987
Epoch 44/50
77/77 [=====] - 0s 1ms/step - loss: 0.6045 - accuracy: 0.6971
Epoch 45/50
77/77 [=====] - 0s 2ms/step - loss: 0.6132 - accuracy: 0.6987
Epoch 46/50
77/77 [=====] - 0s 1ms/step - loss: 0.6114 - accuracy: 0.7052
Epoch 47/50
77/77 [=====] - 0s 1ms/step - loss: 0.6112 - accuracy: 0.7052
Epoch 48/50
77/77 [=====] - 0s 1ms/step - loss: 0.6041 - accuracy: 0.6857
Epoch 49/50
77/77 [=====] - 0s 2ms/step - loss: 0.6169 - accuracy: 0.6873
Epoch 50/50
77/77 [=====] - 0s 1ms/step - loss: 0.6069 - accuracy: 0.6857
20/20 [=====] - 0s 968us/step - loss: 0.5975 - accuracy: 0.7208
Epoch 1/50
77/77 [=====] - 0s 1ms/step - loss: 2.3738 - accuracy: 0.6531
Epoch 2/50
77/77 [=====] - 0s 1ms/step - loss: 1.6781 - accuracy: 0.6645
Epoch 3/50
77/77 [=====] - 0s 1ms/step - loss: 1.3941 - accuracy: 0.6710
Epoch 4/50
77/77 [=====] - 0s 1ms/step - loss: 1.1874 - accuracy: 0.6710
Epoch 5/50
77/77 [=====] - 0s 1ms/step - loss: 1.0217 - accuracy: 0.6694
Epoch 6/50
77/77 [=====] - 0s 1ms/step - loss: 0.9249 - accuracy: 0.6743
Epoch 7/50
77/77 [=====] - 0s 1ms/step - loss: 0.8505 - accuracy: 0.6726
Epoch 8/50
77/77 [=====] - 0s 1ms/step - loss: 0.7943 - accuracy: 0.6710
Epoch 9/50
77/77 [=====] - 0s 1ms/step - loss: 0.7506 - accuracy: 0.6824
Epoch 10/50
77/77 [=====] - 0s 1ms/step - loss: 0.7240 - accuracy: 0.6661
Epoch 11/50
77/77 [=====] - 0s 2ms/step - loss: 0.6989 - accuracy: 0.6645
Epoch 12/50
77/77 [=====] - 0s 1ms/step - loss: 0.6678 - accuracy: 0.7020
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Epoch 13/50
77/77 [=====] - 0s 1ms/step - loss: 0.6658 - accuracy: 0.6743
Epoch 14/50
77/77 [=====] - 0s 1ms/step - loss: 0.6479 - accuracy: 0.7020
Epoch 15/50
77/77 [=====] - 0s 1ms/step - loss: 0.6486 - accuracy: 0.7003
Epoch 16/50
77/77 [=====] - 0s 1ms/step - loss: 0.6463 - accuracy: 0.6906
Epoch 17/50
77/77 [=====] - 0s 2ms/step - loss: 0.6369 - accuracy: 0.6889
Epoch 18/50
77/77 [=====] - 0s 1ms/step - loss: 0.6308 - accuracy: 0.6922
Epoch 19/50
77/77 [=====] - 0s 1ms/step - loss: 0.6312 - accuracy: 0.6873
Epoch 20/50
77/77 [=====] - 0s 1ms/step - loss: 0.6263 - accuracy: 0.7085
Epoch 21/50
77/77 [=====] - 0s 1ms/step - loss: 0.6263 - accuracy: 0.6906
Epoch 22/50
77/77 [=====] - 0s 1ms/step - loss: 0.6231 - accuracy: 0.6938
Epoch 23/50
77/77 [=====] - 0s 2ms/step - loss: 0.6204 - accuracy: 0.6954
Epoch 24/50
77/77 [=====] - 0s 1ms/step - loss: 0.6174 - accuracy: 0.6971
Epoch 25/50
77/77 [=====] - 0s 1ms/step - loss: 0.6153 - accuracy: 0.7020
Epoch 26/50
77/77 [=====] - 0s 1ms/step - loss: 0.6134 - accuracy: 0.6889
Epoch 27/50
77/77 [=====] - 0s 1ms/step - loss: 0.6140 - accuracy: 0.6954
Epoch 28/50
77/77 [=====] - 0s 2ms/step - loss: 0.6159 - accuracy: 0.7020
Epoch 29/50
77/77 [=====] - 0s 1ms/step - loss: 0.6120 - accuracy: 0.7085
Epoch 30/50
77/77 [=====] - 0s 1ms/step - loss: 0.6045 - accuracy: 0.7182
Epoch 31/50
77/77 [=====] - 0s 1ms/step - loss: 0.6161 - accuracy: 0.6938
Epoch 32/50
77/77 [=====] - 0s 1ms/step - loss: 0.6126 - accuracy: 0.6971
Epoch 33/50
77/77 [=====] - 0s 1ms/step - loss: 0.6082 - accuracy: 0.7085
Epoch 34/50
77/77 [=====] - 0s 1ms/step - loss: 0.6045 - accuracy: 0.6808
Epoch 35/50
77/77 [=====] - 0s 2ms/step - loss: 0.6205 - accuracy: 0.6987
Epoch 36/50
77/77 [=====] - 0s 1ms/step - loss: 0.6076 - accuracy: 0.6954
Epoch 37/50
77/77 [=====] - 0s 1ms/step - loss: 0.6006 - accuracy: 0.7150
Epoch 38/50
77/77 [=====] - 0s 1ms/step - loss: 0.6048 - accuracy: 0.6906
Epoch 39/50
77/77 [=====] - 0s 1ms/step - loss: 0.5996 - accuracy: 0.7215
Epoch 40/50
77/77 [=====] - 0s 1ms/step - loss: 0.5972 - accuracy: 0.6954
Epoch 41/50
77/77 [=====] - 0s 1ms/step - loss: 0.6067 - accuracy: 0.7036
Epoch 42/50
77/77 [=====] - 0s 1ms/step - loss: 0.6060 - accuracy: 0.7150
Epoch 43/50
77/77 [=====] - 0s 1ms/step - loss: 0.6054 - accuracy: 0.7003
Epoch 44/50
77/77 [=====] - 0s 2ms/step - loss: 0.6035 - accuracy: 0.6889
Epoch 45/50
77/77 [=====] - 0s 1ms/step - loss: 0.5982 - accuracy: 0.7068
Epoch 46/50
77/77 [=====] - 0s 2ms/step - loss: 0.5978 - accuracy: 0.7068
Epoch 47/50
77/77 [=====] - 0s 1ms/step - loss: 0.6036 - accuracy: 0.7003
Epoch 48/50
77/77 [=====] - 0s 1ms/step - loss: 0.5921 - accuracy: 0.7199
Epoch 49/50
77/77 [=====] - 0s 1ms/step - loss: 0.5941 - accuracy: 0.7101
Epoch 50/50
77/77 [=====] - 0s 1ms/step - loss: 0.5970 - accuracy: 0.6922
20/20 [=====] - 0s 1ms/step - loss: 0.6739 - accuracy: 0.6104
Epoch 1/50
77/77 [=====] - 1s 2ms/step - loss: 3.2228 - accuracy: 0.6091
Epoch 2/50
77/77 [=====] - 0s 1ms/step - loss: 1.7366 - accuracy: 0.6417
Epoch 3/50
```

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77/77 [=====] - 0s 1ms/step - loss: 1.4501 - accuracy: 0.6482
Epoch 4/50
77/77 [=====] - 0s 1ms/step - loss: 1.2472 - accuracy: 0.6580
Epoch 5/50
77/77 [=====] - 0s 1ms/step - loss: 1.0835 - accuracy: 0.6564
Epoch 6/50
77/77 [=====] - 0s 1ms/step - loss: 0.9672 - accuracy: 0.6564
Epoch 7/50
77/77 [=====] - 0s 1ms/step - loss: 0.8725 - accuracy: 0.6596
Epoch 8/50
77/77 [=====] - 0s 1ms/step - loss: 0.8079 - accuracy: 0.6612
Epoch 9/50
77/77 [=====] - 0s 1ms/step - loss: 0.7653 - accuracy: 0.6580
Epoch 10/50
77/77 [=====] - 0s 2ms/step - loss: 0.7302 - accuracy: 0.6694
Epoch 11/50
77/77 [=====] - 0s 1ms/step - loss: 0.7054 - accuracy: 0.6678
Epoch 12/50
77/77 [=====] - 0s 2ms/step - loss: 0.6911 - accuracy: 0.6531
Epoch 13/50
77/77 [=====] - 0s 1ms/step - loss: 0.6756 - accuracy: 0.6612
Epoch 14/50
77/77 [=====] - 0s 1ms/step - loss: 0.6665 - accuracy: 0.6629
Epoch 15/50
77/77 [=====] - 0s 1ms/step - loss: 0.6603 - accuracy: 0.6580
Epoch 16/50
77/77 [=====] - 0s 1ms/step - loss: 0.6547 - accuracy: 0.6564
Epoch 17/50
77/77 [=====] - 0s 2ms/step - loss: 0.6514 - accuracy: 0.6531
Epoch 18/50
77/77 [=====] - 0s 1ms/step - loss: 0.6486 - accuracy: 0.6678
Epoch 19/50
77/77 [=====] - 0s 1ms/step - loss: 0.6444 - accuracy: 0.6515
Epoch 20/50
77/77 [=====] - 0s 1ms/step - loss: 0.6464 - accuracy: 0.6564
Epoch 21/50
77/77 [=====] - 0s 1ms/step - loss: 0.6369 - accuracy: 0.6694
Epoch 22/50
77/77 [=====] - 0s 1ms/step - loss: 0.6403 - accuracy: 0.6824
Epoch 23/50
77/77 [=====] - 0s 1ms/step - loss: 0.6333 - accuracy: 0.6645
Epoch 24/50
77/77 [=====] - 0s 2ms/step - loss: 0.6302 - accuracy: 0.6808
Epoch 25/50
77/77 [=====] - 0s 1ms/step - loss: 0.6325 - accuracy: 0.6596
Epoch 26/50
77/77 [=====] - 0s 1ms/step - loss: 0.6323 - accuracy: 0.6759
Epoch 27/50
77/77 [=====] - 0s 1ms/step - loss: 0.6276 - accuracy: 0.6906
Epoch 28/50
77/77 [=====] - 0s 2ms/step - loss: 0.6266 - accuracy: 0.6645
Epoch 29/50
77/77 [=====] - 0s 1ms/step - loss: 0.6242 - accuracy: 0.7003
Epoch 30/50
77/77 [=====] - 0s 1ms/step - loss: 0.6226 - accuracy: 0.6775
Epoch 31/50
77/77 [=====] - 0s 1ms/step - loss: 0.6278 - accuracy: 0.6922
Epoch 32/50
77/77 [=====] - 0s 1ms/step - loss: 0.6283 - accuracy: 0.6694
Epoch 33/50
77/77 [=====] - 0s 1ms/step - loss: 0.6210 - accuracy: 0.6775
Epoch 34/50
77/77 [=====] - 0s 1ms/step - loss: 0.6215 - accuracy: 0.6743
Epoch 35/50
77/77 [=====] - 0s 1ms/step - loss: 0.6239 - accuracy: 0.6906
Epoch 36/50
77/77 [=====] - 0s 1ms/step - loss: 0.6208 - accuracy: 0.6889
Epoch 37/50
77/77 [=====] - 0s 1ms/step - loss: 0.6246 - accuracy: 0.6873
Epoch 38/50
77/77 [=====] - 0s 1ms/step - loss: 0.6275 - accuracy: 0.6808
Epoch 39/50
77/77 [=====] - 0s 2ms/step - loss: 0.6228 - accuracy: 0.6922
Epoch 40/50
77/77 [=====] - 0s 2ms/step - loss: 0.6166 - accuracy: 0.6938
Epoch 41/50
77/77 [=====] - 0s 1ms/step - loss: 0.6199 - accuracy: 0.6792
Epoch 42/50
77/77 [=====] - 0s 1ms/step - loss: 0.6244 - accuracy: 0.6759
Epoch 43/50
77/77 [=====] - 0s 1ms/step - loss: 0.6219 - accuracy: 0.6792
Epoch 44/50
```

77/77 [=====] - 0s 2ms/step - loss: 0.6171 - accuracy: 0.6857
Epoch 45/50
77/77 [=====] - 0s 1ms/step - loss: 0.6180 - accuracy: 0.6857
Epoch 46/50
77/77 [=====] - 0s 1ms/step - loss: 0.6251 - accuracy: 0.6743
Epoch 47/50
77/77 [=====] - 0s 1ms/step - loss: 0.6081 - accuracy: 0.6775
Epoch 48/50
77/77 [=====] - 0s 1ms/step - loss: 0.6192 - accuracy: 0.6857
Epoch 49/50
77/77 [=====] - 0s 2ms/step - loss: 0.6236 - accuracy: 0.6726
Epoch 50/50
77/77 [=====] - 0s 1ms/step - loss: 0.6149 - accuracy: 0.6922
20/20 [=====] - 0s 1ms/step - loss: 0.5986 - accuracy: 0.6688
Epoch 1/50
77/77 [=====] - 0s 1ms/step - loss: 2.3988 - accuracy: 0.5951
Epoch 2/50
77/77 [=====] - 0s 1ms/step - loss: 1.6650 - accuracy: 0.6455
Epoch 3/50
77/77 [=====] - 0s 1ms/step - loss: 1.3854 - accuracy: 0.6309
Epoch 4/50
77/77 [=====] - 0s 3ms/step - loss: 1.1808 - accuracy: 0.6211
Epoch 5/50
77/77 [=====] - 0s 1ms/step - loss: 1.0378 - accuracy: 0.6585
Epoch 6/50
77/77 [=====] - 0s 1ms/step - loss: 0.9362 - accuracy: 0.6390
Epoch 7/50
77/77 [=====] - 0s 1ms/step - loss: 0.8536 - accuracy: 0.6797
Epoch 8/50
77/77 [=====] - 0s 2ms/step - loss: 0.8049 - accuracy: 0.6537
Epoch 9/50
77/77 [=====] - 0s 1ms/step - loss: 0.7644 - accuracy: 0.6504
Epoch 10/50
77/77 [=====] - 0s 1ms/step - loss: 0.7360 - accuracy: 0.6585
Epoch 11/50
77/77 [=====] - 0s 2ms/step - loss: 0.7121 - accuracy: 0.6439
Epoch 12/50
77/77 [=====] - 0s 2ms/step - loss: 0.6969 - accuracy: 0.6439
Epoch 13/50
77/77 [=====] - 0s 2ms/step - loss: 0.6804 - accuracy: 0.6618
Epoch 14/50
77/77 [=====] - 0s 1ms/step - loss: 0.6788 - accuracy: 0.6423
Epoch 15/50
77/77 [=====] - 0s 1ms/step - loss: 0.6660 - accuracy: 0.6650
Epoch 16/50
77/77 [=====] - 0s 1ms/step - loss: 0.6581 - accuracy: 0.6748
Epoch 17/50
77/77 [=====] - 0s 1ms/step - loss: 0.6563 - accuracy: 0.6634
Epoch 18/50
77/77 [=====] - 0s 2ms/step - loss: 0.6531 - accuracy: 0.6602
Epoch 19/50
77/77 [=====] - 0s 1ms/step - loss: 0.6572 - accuracy: 0.6504
Epoch 20/50
77/77 [=====] - 0s 1ms/step - loss: 0.6443 - accuracy: 0.6699
Epoch 21/50
77/77 [=====] - 0s 1ms/step - loss: 0.6482 - accuracy: 0.6504
Epoch 22/50
77/77 [=====] - 0s 1ms/step - loss: 0.6430 - accuracy: 0.6748
Epoch 23/50
77/77 [=====] - 0s 2ms/step - loss: 0.6469 - accuracy: 0.6520
Epoch 24/50
77/77 [=====] - 0s 2ms/step - loss: 0.6484 - accuracy: 0.6699
Epoch 25/50
77/77 [=====] - 0s 2ms/step - loss: 0.6447 - accuracy: 0.6602
Epoch 26/50
77/77 [=====] - 0s 1ms/step - loss: 0.6462 - accuracy: 0.6585
Epoch 27/50
77/77 [=====] - 0s 2ms/step - loss: 0.6400 - accuracy: 0.6634
Epoch 28/50
77/77 [=====] - 0s 2ms/step - loss: 0.6452 - accuracy: 0.6390
Epoch 29/50
77/77 [=====] - 0s 2ms/step - loss: 0.6391 - accuracy: 0.6699
Epoch 30/50
77/77 [=====] - 0s 1ms/step - loss: 0.6404 - accuracy: 0.6585
Epoch 31/50
77/77 [=====] - 0s 3ms/step - loss: 0.6452 - accuracy: 0.6683
Epoch 32/50
77/77 [=====] - 0s 1ms/step - loss: 0.6331 - accuracy: 0.6569
Epoch 33/50
77/77 [=====] - 0s 1ms/step - loss: 0.6401 - accuracy: 0.6634
Epoch 34/50
77/77 [=====] - 0s 2ms/step - loss: 0.6469 - accuracy: 0.6439

Epoch 35/50
77/77 [=====] - 0s 1ms/step - loss: 0.6346 - accuracy: 0.6667
Epoch 36/50
77/77 [=====] - 0s 2ms/step - loss: 0.6306 - accuracy: 0.6650
Epoch 37/50
77/77 [=====] - 0s 2ms/step - loss: 0.6339 - accuracy: 0.6715
Epoch 38/50
77/77 [=====] - 0s 2ms/step - loss: 0.6353 - accuracy: 0.6780
Epoch 39/50
77/77 [=====] - 0s 2ms/step - loss: 0.6278 - accuracy: 0.6667
Epoch 40/50
77/77 [=====] - 0s 2ms/step - loss: 0.6318 - accuracy: 0.6732
Epoch 41/50
77/77 [=====] - 0s 2ms/step - loss: 0.6348 - accuracy: 0.6797
Epoch 42/50
77/77 [=====] - 0s 2ms/step - loss: 0.6382 - accuracy: 0.6618
Epoch 43/50
77/77 [=====] - 0s 2ms/step - loss: 0.6371 - accuracy: 0.6764
Epoch 44/50
77/77 [=====] - 0s 3ms/step - loss: 0.6250 - accuracy: 0.6764
Epoch 45/50
77/77 [=====] - 0s 2ms/step - loss: 0.6278 - accuracy: 0.6813
Epoch 46/50
77/77 [=====] - 0s 2ms/step - loss: 0.6313 - accuracy: 0.6699
Epoch 47/50
77/77 [=====] - 0s 1ms/step - loss: 0.6358 - accuracy: 0.6683
Epoch 48/50
77/77 [=====] - 0s 1ms/step - loss: 0.6294 - accuracy: 0.6553
Epoch 49/50
77/77 [=====] - 0s 2ms/step - loss: 0.6345 - accuracy: 0.6683
Epoch 50/50
77/77 [=====] - 0s 2ms/step - loss: 0.6324 - accuracy: 0.6699
20/20 [=====] - 0s 1ms/step - loss: 0.5428 - accuracy: 0.7778
Epoch 1/50
77/77 [=====] - 0s 1ms/step - loss: 2.4410 - accuracy: 0.6244
Epoch 2/50
77/77 [=====] - 0s 2ms/step - loss: 1.6433 - accuracy: 0.6520
Epoch 3/50
77/77 [=====] - 0s 1ms/step - loss: 1.3628 - accuracy: 0.6683
Epoch 4/50
77/77 [=====] - 0s 1ms/step - loss: 1.1723 - accuracy: 0.6602
Epoch 5/50
77/77 [=====] - 0s 3ms/step - loss: 1.0257 - accuracy: 0.6618
Epoch 6/50
77/77 [=====] - 0s 1ms/step - loss: 0.9272 - accuracy: 0.6699
Epoch 7/50
77/77 [=====] - 0s 1ms/step - loss: 0.8527 - accuracy: 0.6699
Epoch 8/50
77/77 [=====] - 0s 1ms/step - loss: 0.7984 - accuracy: 0.6732
Epoch 9/50
77/77 [=====] - 0s 1ms/step - loss: 0.7488 - accuracy: 0.6650
Epoch 10/50
77/77 [=====] - 0s 1ms/step - loss: 0.7264 - accuracy: 0.6439
Epoch 11/50
77/77 [=====] - 0s 1ms/step - loss: 0.7031 - accuracy: 0.6699
Epoch 12/50
77/77 [=====] - 0s 2ms/step - loss: 0.6903 - accuracy: 0.6650
Epoch 13/50
77/77 [=====] - 0s 1ms/step - loss: 0.6670 - accuracy: 0.6634
Epoch 14/50
77/77 [=====] - 0s 1ms/step - loss: 0.6667 - accuracy: 0.6683
Epoch 15/50
77/77 [=====] - 0s 1ms/step - loss: 0.6580 - accuracy: 0.6780
Epoch 16/50
77/77 [=====] - 0s 1ms/step - loss: 0.6508 - accuracy: 0.6732
Epoch 17/50
77/77 [=====] - 0s 2ms/step - loss: 0.6470 - accuracy: 0.6618
Epoch 18/50
77/77 [=====] - 0s 1ms/step - loss: 0.6319 - accuracy: 0.6715
Epoch 19/50
77/77 [=====] - 0s 1ms/step - loss: 0.6426 - accuracy: 0.6585
Epoch 20/50
77/77 [=====] - 0s 2ms/step - loss: 0.6486 - accuracy: 0.6650
Epoch 21/50
77/77 [=====] - 0s 2ms/step - loss: 0.6382 - accuracy: 0.6764
Epoch 22/50
77/77 [=====] - 0s 1ms/step - loss: 0.6416 - accuracy: 0.6715
Epoch 23/50
77/77 [=====] - 0s 1ms/step - loss: 0.6260 - accuracy: 0.6797
Epoch 24/50
77/77 [=====] - 0s 1ms/step - loss: 0.6423 - accuracy: 0.6650
Epoch 25/50

77/77 [=====] - 0s 1ms/step - loss: 0.6271 - accuracy: 0.6667
Epoch 26/50
77/77 [=====] - 0s 2ms/step - loss: 0.6296 - accuracy: 0.6732
Epoch 27/50
77/77 [=====] - 0s 1ms/step - loss: 0.6257 - accuracy: 0.6732
Epoch 28/50
77/77 [=====] - 0s 1ms/step - loss: 0.6196 - accuracy: 0.6780
Epoch 29/50
77/77 [=====] - 0s 1ms/step - loss: 0.6250 - accuracy: 0.6797
Epoch 30/50
77/77 [=====] - 0s 2ms/step - loss: 0.6232 - accuracy: 0.6813
Epoch 31/50
77/77 [=====] - 0s 2ms/step - loss: 0.6281 - accuracy: 0.6650
Epoch 32/50
77/77 [=====] - 0s 1ms/step - loss: 0.6224 - accuracy: 0.6618
Epoch 33/50
77/77 [=====] - 0s 3ms/step - loss: 0.6218 - accuracy: 0.6797
Epoch 34/50
77/77 [=====] - 0s 3ms/step - loss: 0.6231 - accuracy: 0.6780
Epoch 35/50
77/77 [=====] - 0s 3ms/step - loss: 0.6208 - accuracy: 0.6732
Epoch 36/50
77/77 [=====] - 0s 2ms/step - loss: 0.6183 - accuracy: 0.6894
Epoch 37/50
77/77 [=====] - 0s 3ms/step - loss: 0.6186 - accuracy: 0.6764
Epoch 38/50
77/77 [=====] - 0s 2ms/step - loss: 0.6190 - accuracy: 0.6732
Epoch 39/50
77/77 [=====] - 0s 2ms/step - loss: 0.6119 - accuracy: 0.6927
Epoch 40/50
77/77 [=====] - 0s 2ms/step - loss: 0.6245 - accuracy: 0.6618
Epoch 41/50
77/77 [=====] - 0s 2ms/step - loss: 0.6177 - accuracy: 0.6732
Epoch 42/50
77/77 [=====] - 0s 2ms/step - loss: 0.6276 - accuracy: 0.6618
Epoch 43/50
77/77 [=====] - 0s 2ms/step - loss: 0.6144 - accuracy: 0.6927
Epoch 44/50
77/77 [=====] - 0s 2ms/step - loss: 0.6166 - accuracy: 0.6813
Epoch 45/50
77/77 [=====] - 0s 2ms/step - loss: 0.6215 - accuracy: 0.6829
Epoch 46/50
77/77 [=====] - 0s 2ms/step - loss: 0.6199 - accuracy: 0.6748
Epoch 47/50
77/77 [=====] - 0s 2ms/step - loss: 0.6147 - accuracy: 0.6813
Epoch 48/50
77/77 [=====] - 0s 2ms/step - loss: 0.6106 - accuracy: 0.6699
Epoch 49/50
77/77 [=====] - 0s 1ms/step - loss: 0.6260 - accuracy: 0.6797
Epoch 50/50
77/77 [=====] - 0s 2ms/step - loss: 0.6103 - accuracy: 0.6764
20/20 [=====] - 0s 2ms/step - loss: 0.6343 - accuracy: 0.6797
Epoch 1/75
77/77 [=====] - 1s 2ms/step - loss: 1.4024 - accuracy: 0.5993
Epoch 2/75
77/77 [=====] - 0s 1ms/step - loss: 0.8114 - accuracy: 0.6531
Epoch 3/75
77/77 [=====] - 0s 1ms/step - loss: 0.7954 - accuracy: 0.6596
Epoch 4/75
77/77 [=====] - 0s 3ms/step - loss: 0.7838 - accuracy: 0.6629
Epoch 5/75
77/77 [=====] - 0s 1ms/step - loss: 0.7743 - accuracy: 0.6629
Epoch 6/75
77/77 [=====] - 0s 1ms/step - loss: 0.7722 - accuracy: 0.6580
Epoch 7/75
77/77 [=====] - 0s 1ms/step - loss: 0.7636 - accuracy: 0.6564
Epoch 8/75
77/77 [=====] - 0s 1ms/step - loss: 0.7573 - accuracy: 0.6564
Epoch 9/75
77/77 [=====] - 0s 2ms/step - loss: 0.7519 - accuracy: 0.6564
Epoch 10/75
77/77 [=====] - 0s 1ms/step - loss: 0.7478 - accuracy: 0.6629
Epoch 11/75
77/77 [=====] - 0s 1ms/step - loss: 0.7464 - accuracy: 0.6596
Epoch 12/75
77/77 [=====] - 0s 1ms/step - loss: 0.7410 - accuracy: 0.6612
Epoch 13/75
77/77 [=====] - 0s 2ms/step - loss: 0.7387 - accuracy: 0.6580
Epoch 14/75
77/77 [=====] - 0s 1ms/step - loss: 0.7357 - accuracy: 0.6612
Epoch 15/75
77/77 [=====] - 0s 2ms/step - loss: 0.7328 - accuracy: 0.6645

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Epoch 16/75
77/77 [=====] - 0s 2ms/step - loss: 0.7289 - accuracy: 0.6612
Epoch 17/75
77/77 [=====] - 0s 2ms/step - loss: 0.7261 - accuracy: 0.6612
Epoch 18/75
77/77 [=====] - 0s 1ms/step - loss: 0.7237 - accuracy: 0.6596
Epoch 19/75
77/77 [=====] - 0s 2ms/step - loss: 0.7212 - accuracy: 0.6629
Epoch 20/75
77/77 [=====] - 0s 1ms/step - loss: 0.7199 - accuracy: 0.6612
Epoch 21/75
77/77 [=====] - 0s 2ms/step - loss: 0.7162 - accuracy: 0.6629
Epoch 22/75
77/77 [=====] - 0s 1ms/step - loss: 0.7145 - accuracy: 0.6596
Epoch 23/75
77/77 [=====] - 0s 2ms/step - loss: 0.7127 - accuracy: 0.6596
Epoch 24/75
77/77 [=====] - 0s 2ms/step - loss: 0.7093 - accuracy: 0.6612
Epoch 25/75
77/77 [=====] - 0s 2ms/step - loss: 0.7084 - accuracy: 0.6564
Epoch 26/75
77/77 [=====] - 0s 1ms/step - loss: 0.7046 - accuracy: 0.6629
Epoch 27/75
77/77 [=====] - 0s 3ms/step - loss: 0.6987 - accuracy: 0.6629
Epoch 28/75
77/77 [=====] - 0s 1ms/step - loss: 0.6871 - accuracy: 0.6792
Epoch 29/75
77/77 [=====] - 0s 2ms/step - loss: 0.6859 - accuracy: 0.6645
Epoch 30/75
77/77 [=====] - 0s 1ms/step - loss: 0.6737 - accuracy: 0.6889
Epoch 31/75
77/77 [=====] - 0s 1ms/step - loss: 0.6772 - accuracy: 0.6645
Epoch 32/75
77/77 [=====] - 0s 1ms/step - loss: 0.6712 - accuracy: 0.6840
Epoch 33/75
77/77 [=====] - 0s 2ms/step - loss: 0.6784 - accuracy: 0.6661
Epoch 34/75
77/77 [=====] - 0s 1ms/step - loss: 0.6665 - accuracy: 0.6857
Epoch 35/75
77/77 [=====] - 0s 2ms/step - loss: 0.6621 - accuracy: 0.6840
Epoch 36/75
77/77 [=====] - 0s 1ms/step - loss: 0.6681 - accuracy: 0.6808
Epoch 37/75
77/77 [=====] - 0s 2ms/step - loss: 0.6687 - accuracy: 0.6775
Epoch 38/75
77/77 [=====] - 0s 2ms/step - loss: 0.6575 - accuracy: 0.6873
Epoch 39/75
77/77 [=====] - 0s 2ms/step - loss: 0.6491 - accuracy: 0.6906
Epoch 40/75
77/77 [=====] - 0s 1ms/step - loss: 0.6588 - accuracy: 0.6743
Epoch 41/75
77/77 [=====] - 0s 2ms/step - loss: 0.6465 - accuracy: 0.7036
Epoch 42/75
77/77 [=====] - 0s 2ms/step - loss: 0.6452 - accuracy: 0.6857
Epoch 43/75
77/77 [=====] - 0s 1ms/step - loss: 0.6426 - accuracy: 0.6954
Epoch 44/75
77/77 [=====] - 0s 2ms/step - loss: 0.6371 - accuracy: 0.6840
Epoch 45/75
77/77 [=====] - 0s 2ms/step - loss: 0.6319 - accuracy: 0.7134
Epoch 46/75
77/77 [=====] - 0s 2ms/step - loss: 0.6388 - accuracy: 0.7020
Epoch 47/75
77/77 [=====] - 0s 1ms/step - loss: 0.6432 - accuracy: 0.6971
Epoch 48/75
77/77 [=====] - 0s 1ms/step - loss: 0.6327 - accuracy: 0.6938
Epoch 49/75
77/77 [=====] - 0s 2ms/step - loss: 0.6315 - accuracy: 0.7101
Epoch 50/75
77/77 [=====] - 0s 2ms/step - loss: 0.6224 - accuracy: 0.7150
Epoch 51/75
77/77 [=====] - 0s 1ms/step - loss: 0.6177 - accuracy: 0.7134
Epoch 52/75
77/77 [=====] - 0s 1ms/step - loss: 0.6314 - accuracy: 0.7052
Epoch 53/75
77/77 [=====] - 0s 1ms/step - loss: 0.6123 - accuracy: 0.7068
Epoch 54/75
77/77 [=====] - 0s 1ms/step - loss: 0.6145 - accuracy: 0.7036
Epoch 55/75
77/77 [=====] - 0s 1ms/step - loss: 0.6276 - accuracy: 0.6971
Epoch 56/75
77/77 [=====] - 0s 1ms/step - loss: 0.6164 - accuracy: 0.7020
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Epoch 57/75
77/77 [=====] - 0s 2ms/step - loss: 0.6101 - accuracy: 0.7166
Epoch 58/75
77/77 [=====] - 0s 2ms/step - loss: 0.6088 - accuracy: 0.7150
Epoch 59/75
77/77 [=====] - 0s 2ms/step - loss: 0.6072 - accuracy: 0.7003
Epoch 60/75
77/77 [=====] - 0s 2ms/step - loss: 0.6077 - accuracy: 0.7248
Epoch 61/75
77/77 [=====] - 0s 2ms/step - loss: 0.6124 - accuracy: 0.6971
Epoch 62/75
77/77 [=====] - 0s 2ms/step - loss: 0.6040 - accuracy: 0.7117
Epoch 63/75
77/77 [=====] - 0s 1ms/step - loss: 0.6069 - accuracy: 0.7345
Epoch 64/75
77/77 [=====] - 0s 2ms/step - loss: 0.6057 - accuracy: 0.7248
Epoch 65/75
77/77 [=====] - 0s 2ms/step - loss: 0.6027 - accuracy: 0.7264
Epoch 66/75
77/77 [=====] - 0s 3ms/step - loss: 0.6061 - accuracy: 0.7231
Epoch 67/75
77/77 [=====] - 0s 2ms/step - loss: 0.6002 - accuracy: 0.7085
Epoch 68/75
77/77 [=====] - 0s 2ms/step - loss: 0.5910 - accuracy: 0.7150
Epoch 69/75
77/77 [=====] - 0s 2ms/step - loss: 0.5976 - accuracy: 0.7101
Epoch 70/75
77/77 [=====] - 0s 2ms/step - loss: 0.5986 - accuracy: 0.7215
Epoch 71/75
77/77 [=====] - 0s 1ms/step - loss: 0.5917 - accuracy: 0.7166
Epoch 72/75
77/77 [=====] - 0s 1ms/step - loss: 0.5919 - accuracy: 0.7215
Epoch 73/75
77/77 [=====] - 0s 2ms/step - loss: 0.5912 - accuracy: 0.7199
Epoch 74/75
77/77 [=====] - 0s 2ms/step - loss: 0.6001 - accuracy: 0.7166
Epoch 75/75
77/77 [=====] - 0s 1ms/step - loss: 0.5962 - accuracy: 0.7296
20/20 [=====] - 0s 2ms/step - loss: 0.6316 - accuracy: 0.7078
Epoch 1/75
77/77 [=====] - 1s 1ms/step - loss: 1.1347 - accuracy: 0.6205
Epoch 2/75
77/77 [=====] - 0s 2ms/step - loss: 0.8444 - accuracy: 0.6564
Epoch 3/75
77/77 [=====] - 0s 1ms/step - loss: 0.8251 - accuracy: 0.6645
Epoch 4/75
77/77 [=====] - 0s 3ms/step - loss: 0.8109 - accuracy: 0.6759
Epoch 5/75
77/77 [=====] - 0s 1ms/step - loss: 0.7944 - accuracy: 0.6840
Epoch 6/75
77/77 [=====] - 0s 2ms/step - loss: 0.7862 - accuracy: 0.6726
Epoch 7/75
77/77 [=====] - 0s 1ms/step - loss: 0.7749 - accuracy: 0.6840
Epoch 8/75
77/77 [=====] - 0s 1ms/step - loss: 0.7741 - accuracy: 0.6726
Epoch 9/75
77/77 [=====] - 0s 1ms/step - loss: 0.7644 - accuracy: 0.6678
Epoch 10/75
77/77 [=====] - 0s 2ms/step - loss: 0.7596 - accuracy: 0.6824
Epoch 11/75
77/77 [=====] - 0s 1ms/step - loss: 0.7515 - accuracy: 0.6808
Epoch 12/75
77/77 [=====] - 0s 1ms/step - loss: 0.7492 - accuracy: 0.6759
Epoch 13/75
77/77 [=====] - 0s 1ms/step - loss: 0.7370 - accuracy: 0.6857
Epoch 14/75
77/77 [=====] - 0s 2ms/step - loss: 0.7344 - accuracy: 0.6889
Epoch 15/75
77/77 [=====] - 0s 1ms/step - loss: 0.7326 - accuracy: 0.6824
Epoch 16/75
77/77 [=====] - 0s 2ms/step - loss: 0.7282 - accuracy: 0.6873
Epoch 17/75
77/77 [=====] - 0s 2ms/step - loss: 0.7225 - accuracy: 0.6808
Epoch 18/75
77/77 [=====] - 0s 2ms/step - loss: 0.7181 - accuracy: 0.6792
Epoch 19/75
77/77 [=====] - 0s 2ms/step - loss: 0.7028 - accuracy: 0.6857
Epoch 20/75
77/77 [=====] - 0s 1ms/step - loss: 0.7262 - accuracy: 0.6743
Epoch 21/75
77/77 [=====] - 0s 2ms/step - loss: 0.7068 - accuracy: 0.6889
Epoch 22/75

77/77 [=====] - 0s 2ms/step - loss: 0.6962 - accuracy: 0.6938
Epoch 23/75
77/77 [=====] - 0s 2ms/step - loss: 0.7009 - accuracy: 0.6857
Epoch 24/75
77/77 [=====] - 0s 1ms/step - loss: 0.6839 - accuracy: 0.6954
Epoch 25/75
77/77 [=====] - 0s 1ms/step - loss: 0.6802 - accuracy: 0.6889
Epoch 26/75
77/77 [=====] - 0s 2ms/step - loss: 0.6795 - accuracy: 0.7036
Epoch 27/75
77/77 [=====] - 0s 1ms/step - loss: 0.6714 - accuracy: 0.6857
Epoch 28/75
77/77 [=====] - 0s 1ms/step - loss: 0.6723 - accuracy: 0.6987
Epoch 29/75
77/77 [=====] - 0s 2ms/step - loss: 0.6662 - accuracy: 0.6889
Epoch 30/75
77/77 [=====] - 0s 2ms/step - loss: 0.6591 - accuracy: 0.7134
Epoch 31/75
77/77 [=====] - 0s 1ms/step - loss: 0.6649 - accuracy: 0.7036
Epoch 32/75
77/77 [=====] - 0s 1ms/step - loss: 0.6503 - accuracy: 0.7003
Epoch 33/75
77/77 [=====] - 0s 2ms/step - loss: 0.6508 - accuracy: 0.7166
Epoch 34/75
77/77 [=====] - 0s 2ms/step - loss: 0.6510 - accuracy: 0.6889
Epoch 35/75
77/77 [=====] - 0s 1ms/step - loss: 0.6519 - accuracy: 0.7150
Epoch 36/75
77/77 [=====] - 0s 1ms/step - loss: 0.6410 - accuracy: 0.7101
Epoch 37/75
77/77 [=====] - 0s 1ms/step - loss: 0.6344 - accuracy: 0.7052
Epoch 38/75
77/77 [=====] - 0s 2ms/step - loss: 0.6262 - accuracy: 0.7166
Epoch 39/75
77/77 [=====] - 0s 2ms/step - loss: 0.6301 - accuracy: 0.7101
Epoch 40/75
77/77 [=====] - 0s 2ms/step - loss: 0.6209 - accuracy: 0.7020
Epoch 41/75
77/77 [=====] - 0s 2ms/step - loss: 0.6246 - accuracy: 0.7020
Epoch 42/75
77/77 [=====] - 0s 1ms/step - loss: 0.6207 - accuracy: 0.7085
Epoch 43/75
77/77 [=====] - 0s 2ms/step - loss: 0.6237 - accuracy: 0.7101
Epoch 44/75
77/77 [=====] - 0s 1ms/step - loss: 0.6157 - accuracy: 0.7150
Epoch 45/75
77/77 [=====] - 0s 1ms/step - loss: 0.6112 - accuracy: 0.7020
Epoch 46/75
77/77 [=====] - 0s 1ms/step - loss: 0.6126 - accuracy: 0.7248
Epoch 47/75
77/77 [=====] - 0s 2ms/step - loss: 0.6065 - accuracy: 0.7182
Epoch 48/75
77/77 [=====] - 0s 1ms/step - loss: 0.6084 - accuracy: 0.7345
Epoch 49/75
77/77 [=====] - 0s 2ms/step - loss: 0.6101 - accuracy: 0.7215
Epoch 50/75
77/77 [=====] - 0s 2ms/step - loss: 0.6061 - accuracy: 0.7150
Epoch 51/75
77/77 [=====] - 0s 2ms/step - loss: 0.5993 - accuracy: 0.7215
Epoch 52/75
77/77 [=====] - 0s 1ms/step - loss: 0.5956 - accuracy: 0.7313
Epoch 53/75
77/77 [=====] - 0s 2ms/step - loss: 0.5939 - accuracy: 0.7150
Epoch 54/75
77/77 [=====] - 0s 2ms/step - loss: 0.6007 - accuracy: 0.7182
Epoch 55/75
77/77 [=====] - 0s 2ms/step - loss: 0.5977 - accuracy: 0.7199
Epoch 56/75
77/77 [=====] - 0s 2ms/step - loss: 0.5928 - accuracy: 0.7345
Epoch 57/75
77/77 [=====] - 0s 2ms/step - loss: 0.5926 - accuracy: 0.7150
Epoch 58/75
77/77 [=====] - 0s 1ms/step - loss: 0.5869 - accuracy: 0.7264
Epoch 59/75
77/77 [=====] - 0s 1ms/step - loss: 0.5907 - accuracy: 0.7362
Epoch 60/75
77/77 [=====] - 0s 1ms/step - loss: 0.5876 - accuracy: 0.7264
Epoch 61/75
77/77 [=====] - 0s 2ms/step - loss: 0.5849 - accuracy: 0.7362
Epoch 62/75
77/77 [=====] - 0s 1ms/step - loss: 0.5802 - accuracy: 0.7427
Epoch 63/75

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77/77 [=====] - 0s 2ms/step - loss: 0.5836 - accuracy: 0.7362
Epoch 64/75
77/77 [=====] - 0s 2ms/step - loss: 0.5797 - accuracy: 0.7199
Epoch 65/75
77/77 [=====] - 0s 3ms/step - loss: 0.5855 - accuracy: 0.7296
Epoch 66/75
77/77 [=====] - 0s 2ms/step - loss: 0.5748 - accuracy: 0.7296
Epoch 67/75
77/77 [=====] - 0s 2ms/step - loss: 0.5857 - accuracy: 0.7003
Epoch 68/75
77/77 [=====] - 0s 1ms/step - loss: 0.5877 - accuracy: 0.7231
Epoch 69/75
77/77 [=====] - 0s 1ms/step - loss: 0.5844 - accuracy: 0.7199
Epoch 70/75
77/77 [=====] - 0s 1ms/step - loss: 0.5761 - accuracy: 0.7296
Epoch 71/75
77/77 [=====] - 0s 2ms/step - loss: 0.5768 - accuracy: 0.7362
Epoch 72/75
77/77 [=====] - 0s 1ms/step - loss: 0.5768 - accuracy: 0.7280
Epoch 73/75
77/77 [=====] - 0s 1ms/step - loss: 0.5676 - accuracy: 0.7443
Epoch 74/75
77/77 [=====] - 0s 1ms/step - loss: 0.5743 - accuracy: 0.7362
Epoch 75/75
77/77 [=====] - 0s 2ms/step - loss: 0.5788 - accuracy: 0.7231
20/20 [=====] - 0s 1ms/step - loss: 0.6448 - accuracy: 0.6818
Epoch 1/75
77/77 [=====] - 0s 2ms/step - loss: 1.0323 - accuracy: 0.6450
Epoch 2/75
77/77 [=====] - 0s 1ms/step - loss: 0.8083 - accuracy: 0.6580
Epoch 3/75
77/77 [=====] - 0s 1ms/step - loss: 0.7775 - accuracy: 0.6515
Epoch 4/75
77/77 [=====] - 0s 2ms/step - loss: 0.7770 - accuracy: 0.6580
Epoch 5/75
77/77 [=====] - 0s 1ms/step - loss: 0.7649 - accuracy: 0.6580
Epoch 6/75
77/77 [=====] - 0s 1ms/step - loss: 0.7614 - accuracy: 0.6564
Epoch 7/75
77/77 [=====] - 0s 1ms/step - loss: 0.7557 - accuracy: 0.6564
Epoch 8/75
77/77 [=====] - 0s 2ms/step - loss: 0.7505 - accuracy: 0.6564
Epoch 9/75
77/77 [=====] - 0s 2ms/step - loss: 0.7457 - accuracy: 0.6564
Epoch 10/75
77/77 [=====] - 0s 2ms/step - loss: 0.7366 - accuracy: 0.6564
Epoch 11/75
77/77 [=====] - 0s 2ms/step - loss: 0.7396 - accuracy: 0.6564
Epoch 12/75
77/77 [=====] - 0s 2ms/step - loss: 0.7376 - accuracy: 0.6564
Epoch 13/75
77/77 [=====] - 0s 2ms/step - loss: 0.7352 - accuracy: 0.6564
Epoch 14/75
77/77 [=====] - 0s 1ms/step - loss: 0.7295 - accuracy: 0.6564
Epoch 15/75
77/77 [=====] - 0s 2ms/step - loss: 0.7238 - accuracy: 0.6564
Epoch 16/75
77/77 [=====] - 0s 2ms/step - loss: 0.7217 - accuracy: 0.6564
Epoch 17/75
77/77 [=====] - 0s 1ms/step - loss: 0.7163 - accuracy: 0.6564
Epoch 18/75
77/77 [=====] - 0s 1ms/step - loss: 0.7132 - accuracy: 0.6564
Epoch 19/75
77/77 [=====] - 0s 2ms/step - loss: 0.7136 - accuracy: 0.6564
Epoch 20/75
77/77 [=====] - 0s 2ms/step - loss: 0.7044 - accuracy: 0.6564
Epoch 21/75
77/77 [=====] - 0s 2ms/step - loss: 0.7039 - accuracy: 0.6564
Epoch 22/75
77/77 [=====] - 0s 2ms/step - loss: 0.7024 - accuracy: 0.6564
Epoch 23/75
77/77 [=====] - 0s 2ms/step - loss: 0.6981 - accuracy: 0.6564
Epoch 24/75
77/77 [=====] - 0s 2ms/step - loss: 0.6957 - accuracy: 0.6564
Epoch 25/75
77/77 [=====] - 0s 2ms/step - loss: 0.6953 - accuracy: 0.6564
Epoch 26/75
77/77 [=====] - 0s 2ms/step - loss: 0.6976 - accuracy: 0.6564
Epoch 27/75
77/77 [=====] - 0s 2ms/step - loss: 0.6890 - accuracy: 0.6564
Epoch 28/75
77/77 [=====] - 0s 3ms/step - loss: 0.6896 - accuracy: 0.6564
```

Epoch 29/75
77/77 [=====] - 0s 2ms/step - loss: 0.6870 - accuracy: 0.6564
Epoch 30/75
77/77 [=====] - 0s 1ms/step - loss: 0.6841 - accuracy: 0.6580
Epoch 31/75
77/77 [=====] - 0s 1ms/step - loss: 0.6838 - accuracy: 0.6564
Epoch 32/75
77/77 [=====] - 0s 1ms/step - loss: 0.6782 - accuracy: 0.6580
Epoch 33/75
77/77 [=====] - 0s 2ms/step - loss: 0.6769 - accuracy: 0.6580
Epoch 34/75
77/77 [=====] - 0s 1ms/step - loss: 0.6754 - accuracy: 0.6580
Epoch 35/75
77/77 [=====] - 0s 1ms/step - loss: 0.6740 - accuracy: 0.6580
Epoch 36/75
77/77 [=====] - 0s 1ms/step - loss: 0.6725 - accuracy: 0.6580
Epoch 37/75
77/77 [=====] - 0s 2ms/step - loss: 0.6695 - accuracy: 0.6580
Epoch 38/75
77/77 [=====] - 0s 1ms/step - loss: 0.6657 - accuracy: 0.6580
Epoch 39/75
77/77 [=====] - 0s 1ms/step - loss: 0.6650 - accuracy: 0.6564
Epoch 40/75
77/77 [=====] - 0s 1ms/step - loss: 0.6608 - accuracy: 0.6580
Epoch 41/75
77/77 [=====] - 0s 1ms/step - loss: 0.6618 - accuracy: 0.6580
Epoch 42/75
77/77 [=====] - 0s 1ms/step - loss: 0.6648 - accuracy: 0.6580
Epoch 43/75
77/77 [=====] - 0s 2ms/step - loss: 0.6628 - accuracy: 0.6580
Epoch 44/75
77/77 [=====] - 0s 1ms/step - loss: 0.6625 - accuracy: 0.6564
Epoch 45/75
77/77 [=====] - 0s 2ms/step - loss: 0.6581 - accuracy: 0.6580
Epoch 46/75
77/77 [=====] - 0s 1ms/step - loss: 0.6622 - accuracy: 0.6564
Epoch 47/75
77/77 [=====] - 0s 1ms/step - loss: 0.6592 - accuracy: 0.6580
Epoch 48/75
77/77 [=====] - 0s 2ms/step - loss: 0.6525 - accuracy: 0.6564
Epoch 49/75
77/77 [=====] - 0s 2ms/step - loss: 0.6541 - accuracy: 0.6564
Epoch 50/75
77/77 [=====] - 0s 2ms/step - loss: 0.6498 - accuracy: 0.6580
Epoch 51/75
77/77 [=====] - 0s 2ms/step - loss: 0.6541 - accuracy: 0.6564
Epoch 52/75
77/77 [=====] - 0s 2ms/step - loss: 0.6524 - accuracy: 0.6564
Epoch 53/75
77/77 [=====] - 0s 2ms/step - loss: 0.6510 - accuracy: 0.6580
Epoch 54/75
77/77 [=====] - 0s 2ms/step - loss: 0.6501 - accuracy: 0.6580
Epoch 55/75
77/77 [=====] - 0s 4ms/step - loss: 0.6491 - accuracy: 0.6580
Epoch 56/75
77/77 [=====] - 0s 3ms/step - loss: 0.6436 - accuracy: 0.6580
Epoch 57/75
77/77 [=====] - 0s 2ms/step - loss: 0.6437 - accuracy: 0.6564
Epoch 58/75
77/77 [=====] - 0s 2ms/step - loss: 0.6454 - accuracy: 0.6564
Epoch 59/75
77/77 [=====] - 0s 2ms/step - loss: 0.6475 - accuracy: 0.6580
Epoch 60/75
77/77 [=====] - 0s 1ms/step - loss: 0.6442 - accuracy: 0.6564
Epoch 61/75
77/77 [=====] - 0s 1ms/step - loss: 0.6479 - accuracy: 0.6564
Epoch 62/75
77/77 [=====] - 0s 1ms/step - loss: 0.6479 - accuracy: 0.6564
Epoch 63/75
77/77 [=====] - 0s 2ms/step - loss: 0.6513 - accuracy: 0.6564
Epoch 64/75
77/77 [=====] - 0s 1ms/step - loss: 0.6453 - accuracy: 0.6564
Epoch 65/75
77/77 [=====] - 0s 3ms/step - loss: 0.6459 - accuracy: 0.6564
Epoch 66/75
77/77 [=====] - 0s 1ms/step - loss: 0.6457 - accuracy: 0.6564
Epoch 67/75
77/77 [=====] - 0s 2ms/step - loss: 0.6471 - accuracy: 0.6564
Epoch 68/75
77/77 [=====] - 0s 2ms/step - loss: 0.6488 - accuracy: 0.6564
Epoch 69/75
77/77 [=====] - 0s 2ms/step - loss: 0.6389 - accuracy: 0.6580

Epoch 70/75
77/77 [=====] - 0s 2ms/step - loss: 0.6349 - accuracy: 0.6564
Epoch 71/75
77/77 [=====] - 0s 2ms/step - loss: 0.6387 - accuracy: 0.6564
Epoch 72/75
77/77 [=====] - 0s 2ms/step - loss: 0.6377 - accuracy: 0.6580
Epoch 73/75
77/77 [=====] - 0s 2ms/step - loss: 0.6441 - accuracy: 0.6580
Epoch 74/75
77/77 [=====] - 0s 2ms/step - loss: 0.6290 - accuracy: 0.6580
Epoch 75/75
77/77 [=====] - 0s 2ms/step - loss: 0.6315 - accuracy: 0.6580
20/20 [=====] - 0s 2ms/step - loss: 0.6522 - accuracy: 0.6299
Epoch 1/75
77/77 [=====] - 1s 2ms/step - loss: 1.6208 - accuracy: 0.6065
Epoch 2/75
77/77 [=====] - 0s 3ms/step - loss: 0.8376 - accuracy: 0.6228
Epoch 3/75
77/77 [=====] - 0s 2ms/step - loss: 0.8212 - accuracy: 0.6260
Epoch 4/75
77/77 [=====] - 0s 2ms/step - loss: 0.8119 - accuracy: 0.6276
Epoch 5/75
77/77 [=====] - 0s 2ms/step - loss: 0.8051 - accuracy: 0.6244
Epoch 6/75
77/77 [=====] - 0s 2ms/step - loss: 0.7992 - accuracy: 0.6228
Epoch 7/75
77/77 [=====] - 0s 2ms/step - loss: 0.7908 - accuracy: 0.6260
Epoch 8/75
77/77 [=====] - 0s 2ms/step - loss: 0.7867 - accuracy: 0.6244
Epoch 9/75
77/77 [=====] - 0s 2ms/step - loss: 0.7827 - accuracy: 0.6244
Epoch 10/75
77/77 [=====] - 0s 1ms/step - loss: 0.7764 - accuracy: 0.6228
Epoch 11/75
77/77 [=====] - 0s 2ms/step - loss: 0.7738 - accuracy: 0.6260
Epoch 12/75
77/77 [=====] - 0s 2ms/step - loss: 0.7690 - accuracy: 0.6244
Epoch 13/75
77/77 [=====] - 0s 1ms/step - loss: 0.7685 - accuracy: 0.6276
Epoch 14/75
77/77 [=====] - 0s 2ms/step - loss: 0.7618 - accuracy: 0.6276
Epoch 15/75
77/77 [=====] - 0s 2ms/step - loss: 0.7592 - accuracy: 0.6276
Epoch 16/75
77/77 [=====] - 0s 2ms/step - loss: 0.7563 - accuracy: 0.6276
Epoch 17/75
77/77 [=====] - 0s 2ms/step - loss: 0.7536 - accuracy: 0.6276
Epoch 18/75
77/77 [=====] - 0s 3ms/step - loss: 0.7482 - accuracy: 0.6276
Epoch 19/75
77/77 [=====] - 0s 2ms/step - loss: 0.7484 - accuracy: 0.6276
Epoch 20/75
77/77 [=====] - 0s 2ms/step - loss: 0.7389 - accuracy: 0.6276
Epoch 21/75
77/77 [=====] - 0s 3ms/step - loss: 0.7430 - accuracy: 0.6276
Epoch 22/75
77/77 [=====] - 0s 4ms/step - loss: 0.7359 - accuracy: 0.6276
Epoch 23/75
77/77 [=====] - 0s 3ms/step - loss: 0.7346 - accuracy: 0.6276
Epoch 24/75
77/77 [=====] - 0s 2ms/step - loss: 0.7323 - accuracy: 0.6276
Epoch 25/75
77/77 [=====] - 0s 1ms/step - loss: 0.7334 - accuracy: 0.6276
Epoch 26/75
77/77 [=====] - 0s 1ms/step - loss: 0.7310 - accuracy: 0.6260
Epoch 27/75
77/77 [=====] - 0s 2ms/step - loss: 0.7278 - accuracy: 0.6260
Epoch 28/75
77/77 [=====] - 0s 2ms/step - loss: 0.7239 - accuracy: 0.6276
Epoch 29/75
77/77 [=====] - 0s 2ms/step - loss: 0.7236 - accuracy: 0.6276
Epoch 30/75
77/77 [=====] - 0s 2ms/step - loss: 0.7215 - accuracy: 0.6260
Epoch 31/75
77/77 [=====] - 0s 2ms/step - loss: 0.7163 - accuracy: 0.6276
Epoch 32/75
77/77 [=====] - 0s 2ms/step - loss: 0.7109 - accuracy: 0.6276
Epoch 33/75
77/77 [=====] - 0s 4ms/step - loss: 0.7130 - accuracy: 0.6276
Epoch 34/75
77/77 [=====] - 0s 3ms/step - loss: 0.7090 - accuracy: 0.6276
Epoch 35/75


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77/77 [=====] - 0s 3ms/step - loss: 0.7053 - accuracy: 0.6276
Epoch 36/75
77/77 [=====] - 0s 2ms/step - loss: 0.6985 - accuracy: 0.6293
Epoch 37/75
77/77 [=====] - 0s 2ms/step - loss: 0.7087 - accuracy: 0.6276
Epoch 38/75
77/77 [=====] - 0s 3ms/step - loss: 0.6833 - accuracy: 0.6276
Epoch 39/75
77/77 [=====] - 0s 2ms/step - loss: 0.6864 - accuracy: 0.6276
Epoch 40/75
77/77 [=====] - 0s 3ms/step - loss: 0.7004 - accuracy: 0.6276
Epoch 41/75
77/77 [=====] - 0s 4ms/step - loss: 0.6923 - accuracy: 0.6276
Epoch 42/75
77/77 [=====] - 0s 2ms/step - loss: 0.6808 - accuracy: 0.6276
Epoch 43/75
77/77 [=====] - 0s 3ms/step - loss: 0.6891 - accuracy: 0.6276
Epoch 44/75
77/77 [=====] - 0s 2ms/step - loss: 0.6808 - accuracy: 0.6260
Epoch 45/75
77/77 [=====] - 0s 1ms/step - loss: 0.6864 - accuracy: 0.6260
Epoch 46/75
77/77 [=====] - 0s 1ms/step - loss: 0.6753 - accuracy: 0.6276
Epoch 47/75
77/77 [=====] - 0s 2ms/step - loss: 0.6894 - accuracy: 0.6260
Epoch 48/75
77/77 [=====] - 0s 1ms/step - loss: 0.6825 - accuracy: 0.6276
Epoch 49/75
77/77 [=====] - 0s 1ms/step - loss: 0.6772 - accuracy: 0.6276
Epoch 50/75
77/77 [=====] - 0s 2ms/step - loss: 0.6790 - accuracy: 0.6276
Epoch 51/75
77/77 [=====] - 0s 2ms/step - loss: 0.6644 - accuracy: 0.6276
Epoch 52/75
77/77 [=====] - 0s 2ms/step - loss: 0.6804 - accuracy: 0.6276
Epoch 53/75
77/77 [=====] - 0s 2ms/step - loss: 0.6818 - accuracy: 0.6293
Epoch 54/75
77/77 [=====] - 0s 3ms/step - loss: 0.6662 - accuracy: 0.6276
Epoch 55/75
77/77 [=====] - 0s 1ms/step - loss: 0.6806 - accuracy: 0.6260
Epoch 56/75
77/77 [=====] - 0s 1ms/step - loss: 0.6718 - accuracy: 0.6260
Epoch 57/75
77/77 [=====] - 0s 1ms/step - loss: 0.6613 - accuracy: 0.6276
Epoch 58/75
77/77 [=====] - 0s 2ms/step - loss: 0.6547 - accuracy: 0.6260
Epoch 59/75
77/77 [=====] - 0s 1ms/step - loss: 0.6801 - accuracy: 0.6293
Epoch 60/75
77/77 [=====] - 0s 1ms/step - loss: 0.6595 - accuracy: 0.6276
Epoch 61/75
77/77 [=====] - 0s 1ms/step - loss: 0.6685 - accuracy: 0.6276
Epoch 62/75
77/77 [=====] - 0s 2ms/step - loss: 0.6601 - accuracy: 0.6244
Epoch 63/75
77/77 [=====] - 0s 1ms/step - loss: 0.6599 - accuracy: 0.6276
Epoch 64/75
77/77 [=====] - 0s 1ms/step - loss: 0.6633 - accuracy: 0.6276
Epoch 65/75
77/77 [=====] - 0s 2ms/step - loss: 0.6534 - accuracy: 0.6276
Epoch 66/75
77/77 [=====] - 0s 1ms/step - loss: 0.6653 - accuracy: 0.6276
Epoch 67/75
77/77 [=====] - 0s 1ms/step - loss: 0.6547 - accuracy: 0.6293
Epoch 68/75
77/77 [=====] - 0s 2ms/step - loss: 0.6747 - accuracy: 0.6276
Epoch 69/75
77/77 [=====] - 0s 2ms/step - loss: 0.6512 - accuracy: 0.6293
Epoch 70/75
77/77 [=====] - 0s 2ms/step - loss: 0.6602 - accuracy: 0.6276
Epoch 71/75
77/77 [=====] - 0s 2ms/step - loss: 0.6692 - accuracy: 0.6276
Epoch 72/75
77/77 [=====] - 0s 3ms/step - loss: 0.6621 - accuracy: 0.6260
Epoch 73/75
77/77 [=====] - 0s 3ms/step - loss: 0.6585 - accuracy: 0.6276
Epoch 74/75
77/77 [=====] - 0s 3ms/step - loss: 0.6580 - accuracy: 0.6276
Epoch 75/75
77/77 [=====] - 0s 2ms/step - loss: 0.6620 - accuracy: 0.6276
20/20 [=====] - 0s 1ms/step - loss: 0.5738 - accuracy: 0.7516
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Epoch 1/75
77/77 [=====] - 1s 4ms/step - loss: 1.1812 - accuracy: 0.6325
Epoch 2/75
77/77 [=====] - 0s 3ms/step - loss: 0.7829 - accuracy: 0.6585
Epoch 3/75
77/77 [=====] - 0s 2ms/step - loss: 0.7736 - accuracy: 0.6520
Epoch 4/75
77/77 [=====] - 0s 2ms/step - loss: 0.7682 - accuracy: 0.6504
Epoch 5/75
77/77 [=====] - 0s 2ms/step - loss: 0.7700 - accuracy: 0.6537
Epoch 6/75
77/77 [=====] - 0s 2ms/step - loss: 0.7678 - accuracy: 0.6488
Epoch 7/75
77/77 [=====] - 0s 2ms/step - loss: 0.7665 - accuracy: 0.6585
Epoch 8/75
77/77 [=====] - 0s 3ms/step - loss: 0.7462 - accuracy: 0.6504
Epoch 9/75
77/77 [=====] - 0s 2ms/step - loss: 0.7453 - accuracy: 0.6520
Epoch 10/75
77/77 [=====] - 0s 2ms/step - loss: 0.7442 - accuracy: 0.6520
Epoch 11/75
77/77 [=====] - 0s 2ms/step - loss: 0.7380 - accuracy: 0.6553
Epoch 12/75
77/77 [=====] - 0s 2ms/step - loss: 0.7264 - accuracy: 0.6553
Epoch 13/75
77/77 [=====] - 0s 2ms/step - loss: 0.7323 - accuracy: 0.6537
Epoch 14/75
77/77 [=====] - 0s 2ms/step - loss: 0.7264 - accuracy: 0.6569
Epoch 15/75
77/77 [=====] - 0s 2ms/step - loss: 0.7197 - accuracy: 0.6537
Epoch 16/75
77/77 [=====] - 0s 2ms/step - loss: 0.7209 - accuracy: 0.6553
Epoch 17/75
77/77 [=====] - 0s 2ms/step - loss: 0.7225 - accuracy: 0.6553
Epoch 18/75
77/77 [=====] - 0s 2ms/step - loss: 0.7127 - accuracy: 0.6553
Epoch 19/75
77/77 [=====] - 0s 2ms/step - loss: 0.7122 - accuracy: 0.6537
Epoch 20/75
77/77 [=====] - 0s 2ms/step - loss: 0.7063 - accuracy: 0.6553
Epoch 21/75
77/77 [=====] - 0s 1ms/step - loss: 0.7057 - accuracy: 0.6553
Epoch 22/75
77/77 [=====] - 0s 2ms/step - loss: 0.7053 - accuracy: 0.6553
Epoch 23/75
77/77 [=====] - 0s 2ms/step - loss: 0.6996 - accuracy: 0.6553
Epoch 24/75
77/77 [=====] - 0s 2ms/step - loss: 0.6963 - accuracy: 0.6553
Epoch 25/75
77/77 [=====] - 0s 2ms/step - loss: 0.6985 - accuracy: 0.6553
Epoch 26/75
77/77 [=====] - 0s 2ms/step - loss: 0.6964 - accuracy: 0.6553
Epoch 27/75
77/77 [=====] - 0s 1ms/step - loss: 0.6906 - accuracy: 0.6537
Epoch 28/75
77/77 [=====] - 0s 2ms/step - loss: 0.6892 - accuracy: 0.6553
Epoch 29/75
77/77 [=====] - 0s 3ms/step - loss: 0.6870 - accuracy: 0.6553
Epoch 30/75
77/77 [=====] - 0s 2ms/step - loss: 0.6871 - accuracy: 0.6553
Epoch 31/75
77/77 [=====] - 0s 3ms/step - loss: 0.6865 - accuracy: 0.6537
Epoch 32/75
77/77 [=====] - 0s 3ms/step - loss: 0.6764 - accuracy: 0.6553
Epoch 33/75
77/77 [=====] - 0s 2ms/step - loss: 0.6763 - accuracy: 0.6618
Epoch 34/75
77/77 [=====] - 0s 2ms/step - loss: 0.6765 - accuracy: 0.6569
Epoch 35/75
77/77 [=====] - 0s 2ms/step - loss: 0.6753 - accuracy: 0.6569
Epoch 36/75
77/77 [=====] - 0s 2ms/step - loss: 0.6722 - accuracy: 0.6504
Epoch 37/75
77/77 [=====] - 0s 2ms/step - loss: 0.6751 - accuracy: 0.6553
Epoch 38/75
77/77 [=====] - 0s 2ms/step - loss: 0.6709 - accuracy: 0.6553
Epoch 39/75
77/77 [=====] - 0s 2ms/step - loss: 0.6683 - accuracy: 0.6504
Epoch 40/75
77/77 [=====] - 0s 2ms/step - loss: 0.6668 - accuracy: 0.6537
Epoch 41/75
77/77 [=====] - 0s 1ms/step - loss: 0.6640 - accuracy: 0.6569
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Epoch 42/75
77/77 [=====] - 0s 1ms/step - loss: 0.6667 - accuracy: 0.6504
Epoch 43/75
77/77 [=====] - 0s 2ms/step - loss: 0.6667 - accuracy: 0.6553
Epoch 44/75
77/77 [=====] - 0s 2ms/step - loss: 0.6657 - accuracy: 0.6569
Epoch 45/75
77/77 [=====] - 0s 1ms/step - loss: 0.6567 - accuracy: 0.6618
Epoch 46/75
77/77 [=====] - 0s 2ms/step - loss: 0.6614 - accuracy: 0.6537
Epoch 47/75
77/77 [=====] - 0s 2ms/step - loss: 0.6574 - accuracy: 0.6537
Epoch 48/75
77/77 [=====] - 0s 2ms/step - loss: 0.6624 - accuracy: 0.6520
Epoch 49/75
77/77 [=====] - 0s 3ms/step - loss: 0.6597 - accuracy: 0.6537
Epoch 50/75
77/77 [=====] - 0s 4ms/step - loss: 0.6589 - accuracy: 0.6569
Epoch 51/75
77/77 [=====] - 0s 3ms/step - loss: 0.6557 - accuracy: 0.6553
Epoch 52/75
77/77 [=====] - 0s 2ms/step - loss: 0.6474 - accuracy: 0.6569
Epoch 53/75
77/77 [=====] - 0s 2ms/step - loss: 0.6550 - accuracy: 0.6602
Epoch 54/75
77/77 [=====] - 0s 3ms/step - loss: 0.6497 - accuracy: 0.6537
Epoch 55/75
77/77 [=====] - 0s 3ms/step - loss: 0.6513 - accuracy: 0.6634
Epoch 56/75
77/77 [=====] - 0s 3ms/step - loss: 0.6474 - accuracy: 0.6618
Epoch 57/75
77/77 [=====] - 0s 1ms/step - loss: 0.6378 - accuracy: 0.6797
Epoch 58/75
77/77 [=====] - 0s 1ms/step - loss: 0.6404 - accuracy: 0.6780
Epoch 59/75
77/77 [=====] - 0s 2ms/step - loss: 0.6349 - accuracy: 0.6927
Epoch 60/75
77/77 [=====] - 0s 2ms/step - loss: 0.6377 - accuracy: 0.6764
Epoch 61/75
77/77 [=====] - 0s 2ms/step - loss: 0.6287 - accuracy: 0.6780
Epoch 62/75
77/77 [=====] - 0s 2ms/step - loss: 0.6310 - accuracy: 0.6813
Epoch 63/75
77/77 [=====] - 0s 2ms/step - loss: 0.6407 - accuracy: 0.6699
Epoch 64/75
77/77 [=====] - 0s 1ms/step - loss: 0.6267 - accuracy: 0.6862
Epoch 65/75
77/77 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6634
Epoch 66/75
77/77 [=====] - 0s 2ms/step - loss: 0.6212 - accuracy: 0.6878
Epoch 67/75
77/77 [=====] - 0s 2ms/step - loss: 0.6302 - accuracy: 0.6878
Epoch 68/75
77/77 [=====] - 0s 2ms/step - loss: 0.6249 - accuracy: 0.6829
Epoch 69/75
77/77 [=====] - 0s 2ms/step - loss: 0.6211 - accuracy: 0.6780
Epoch 70/75
77/77 [=====] - 0s 2ms/step - loss: 0.6229 - accuracy: 0.6894
Epoch 71/75
77/77 [=====] - 0s 2ms/step - loss: 0.6347 - accuracy: 0.6780
Epoch 72/75
77/77 [=====] - 0s 1ms/step - loss: 0.6198 - accuracy: 0.6894
Epoch 73/75
77/77 [=====] - 0s 2ms/step - loss: 0.6236 - accuracy: 0.6959
Epoch 74/75
77/77 [=====] - 0s 3ms/step - loss: 0.6277 - accuracy: 0.6764
Epoch 75/75
77/77 [=====] - 0s 2ms/step - loss: 0.6214 - accuracy: 0.6829
20/20 [=====] - 0s 1ms/step - loss: 0.6299 - accuracy: 0.6667
Epoch 1/75
77/77 [=====] - 1s 1ms/step - loss: 3.3030 - accuracy: 0.5782
Epoch 2/75
77/77 [=====] - 0s 2ms/step - loss: 1.6992 - accuracy: 0.6547
Epoch 3/75
77/77 [=====] - 0s 2ms/step - loss: 1.4204 - accuracy: 0.6547
Epoch 4/75
77/77 [=====] - 0s 2ms/step - loss: 1.2025 - accuracy: 0.6612
Epoch 5/75
77/77 [=====] - 0s 2ms/step - loss: 1.0595 - accuracy: 0.6531
Epoch 6/75
77/77 [=====] - 0s 2ms/step - loss: 0.9503 - accuracy: 0.6580
Epoch 7/75
```

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77/77 [=====] - 0s 3ms/step - loss: 0.8631 - accuracy: 0.6531
Epoch 8/75
77/77 [=====] - 0s 3ms/step - loss: 0.8067 - accuracy: 0.6515
Epoch 9/75
77/77 [=====] - 0s 2ms/step - loss: 0.7638 - accuracy: 0.6580
Epoch 10/75
77/77 [=====] - 0s 1ms/step - loss: 0.7366 - accuracy: 0.6612
Epoch 11/75
77/77 [=====] - 0s 2ms/step - loss: 0.7047 - accuracy: 0.6661
Epoch 12/75
77/77 [=====] - 0s 1ms/step - loss: 0.6875 - accuracy: 0.6726
Epoch 13/75
77/77 [=====] - 0s 1ms/step - loss: 0.6635 - accuracy: 0.6971
Epoch 14/75
77/77 [=====] - 0s 2ms/step - loss: 0.6724 - accuracy: 0.6580
Epoch 15/75
77/77 [=====] - 0s 2ms/step - loss: 0.6576 - accuracy: 0.6792
Epoch 16/75
77/77 [=====] - 0s 2ms/step - loss: 0.6564 - accuracy: 0.6792
Epoch 17/75
77/77 [=====] - 0s 2ms/step - loss: 0.6503 - accuracy: 0.6775
Epoch 18/75
77/77 [=====] - 0s 2ms/step - loss: 0.6450 - accuracy: 0.6824
Epoch 19/75
77/77 [=====] - 0s 1ms/step - loss: 0.6524 - accuracy: 0.6710
Epoch 20/75
77/77 [=====] - 0s 2ms/step - loss: 0.6470 - accuracy: 0.6694
Epoch 21/75
77/77 [=====] - 0s 2ms/step - loss: 0.6457 - accuracy: 0.6710
Epoch 22/75
77/77 [=====] - 0s 2ms/step - loss: 0.6368 - accuracy: 0.6840
Epoch 23/75
77/77 [=====] - 0s 3ms/step - loss: 0.6422 - accuracy: 0.6743
Epoch 24/75
77/77 [=====] - 0s 2ms/step - loss: 0.6203 - accuracy: 0.6873
Epoch 25/75
77/77 [=====] - 0s 2ms/step - loss: 0.6385 - accuracy: 0.6694
Epoch 26/75
77/77 [=====] - 0s 2ms/step - loss: 0.6313 - accuracy: 0.6759
Epoch 27/75
77/77 [=====] - 0s 1ms/step - loss: 0.6365 - accuracy: 0.6824
Epoch 28/75
77/77 [=====] - 0s 2ms/step - loss: 0.6347 - accuracy: 0.6645
Epoch 29/75
77/77 [=====] - 0s 2ms/step - loss: 0.6426 - accuracy: 0.6645
Epoch 30/75
77/77 [=====] - 0s 2ms/step - loss: 0.6321 - accuracy: 0.6775
Epoch 31/75
77/77 [=====] - 0s 2ms/step - loss: 0.6285 - accuracy: 0.6792
Epoch 32/75
77/77 [=====] - 0s 2ms/step - loss: 0.6275 - accuracy: 0.6824
Epoch 33/75
77/77 [=====] - 0s 2ms/step - loss: 0.6283 - accuracy: 0.6792
Epoch 34/75
77/77 [=====] - 0s 2ms/step - loss: 0.6260 - accuracy: 0.6710
Epoch 35/75
77/77 [=====] - 0s 2ms/step - loss: 0.6314 - accuracy: 0.6580
Epoch 36/75
77/77 [=====] - 0s 1ms/step - loss: 0.6283 - accuracy: 0.6954
Epoch 37/75
77/77 [=====] - 0s 2ms/step - loss: 0.6201 - accuracy: 0.7020
Epoch 38/75
77/77 [=====] - 0s 2ms/step - loss: 0.6215 - accuracy: 0.6808
Epoch 39/75
77/77 [=====] - 0s 2ms/step - loss: 0.6187 - accuracy: 0.6938
Epoch 40/75
77/77 [=====] - 0s 2ms/step - loss: 0.6209 - accuracy: 0.6808
Epoch 41/75
77/77 [=====] - 0s 2ms/step - loss: 0.6152 - accuracy: 0.6629
Epoch 42/75
77/77 [=====] - 0s 2ms/step - loss: 0.6204 - accuracy: 0.6743
Epoch 43/75
77/77 [=====] - 0s 2ms/step - loss: 0.6314 - accuracy: 0.6629
Epoch 44/75
77/77 [=====] - 0s 2ms/step - loss: 0.6224 - accuracy: 0.6824
Epoch 45/75
77/77 [=====] - 0s 2ms/step - loss: 0.6133 - accuracy: 0.6971
Epoch 46/75
77/77 [=====] - 0s 2ms/step - loss: 0.6180 - accuracy: 0.6710
Epoch 47/75
77/77 [=====] - 0s 2ms/step - loss: 0.6193 - accuracy: 0.6873
Epoch 48/75
```

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77/77 [=====] - 0s 2ms/step - loss: 0.6126 - accuracy: 0.6922
Epoch 49/75
77/77 [=====] - 0s 2ms/step - loss: 0.6212 - accuracy: 0.6824
Epoch 50/75
77/77 [=====] - 0s 2ms/step - loss: 0.6192 - accuracy: 0.6971
Epoch 51/75
77/77 [=====] - 0s 2ms/step - loss: 0.6280 - accuracy: 0.6857
Epoch 52/75
77/77 [=====] - 0s 2ms/step - loss: 0.6212 - accuracy: 0.6857
Epoch 53/75
77/77 [=====] - 0s 2ms/step - loss: 0.6130 - accuracy: 0.6889
Epoch 54/75
77/77 [=====] - 0s 2ms/step - loss: 0.6076 - accuracy: 0.7101
Epoch 55/75
77/77 [=====] - 0s 1ms/step - loss: 0.6062 - accuracy: 0.7020
Epoch 56/75
77/77 [=====] - 0s 2ms/step - loss: 0.6141 - accuracy: 0.6922
Epoch 57/75
77/77 [=====] - 0s 2ms/step - loss: 0.6129 - accuracy: 0.6889
Epoch 58/75
77/77 [=====] - 0s 2ms/step - loss: 0.6037 - accuracy: 0.6954
Epoch 59/75
77/77 [=====] - 0s 2ms/step - loss: 0.6137 - accuracy: 0.6808
Epoch 60/75
77/77 [=====] - 0s 1ms/step - loss: 0.6243 - accuracy: 0.6792
Epoch 61/75
77/77 [=====] - 0s 2ms/step - loss: 0.6131 - accuracy: 0.6873
Epoch 62/75
77/77 [=====] - 0s 2ms/step - loss: 0.6133 - accuracy: 0.6971
Epoch 63/75
77/77 [=====] - 0s 1ms/step - loss: 0.6070 - accuracy: 0.7101
Epoch 64/75
77/77 [=====] - 0s 2ms/step - loss: 0.6100 - accuracy: 0.6987
Epoch 65/75
77/77 [=====] - 0s 3ms/step - loss: 0.6100 - accuracy: 0.7052
Epoch 66/75
77/77 [=====] - 0s 2ms/step - loss: 0.6131 - accuracy: 0.6938
Epoch 67/75
77/77 [=====] - 0s 2ms/step - loss: 0.6037 - accuracy: 0.6971
Epoch 68/75
77/77 [=====] - 0s 2ms/step - loss: 0.6084 - accuracy: 0.7036
Epoch 69/75
77/77 [=====] - 0s 2ms/step - loss: 0.6016 - accuracy: 0.6971
Epoch 70/75
77/77 [=====] - 0s 2ms/step - loss: 0.6052 - accuracy: 0.7068
Epoch 71/75
77/77 [=====] - 0s 2ms/step - loss: 0.6082 - accuracy: 0.6889
Epoch 72/75
77/77 [=====] - 0s 2ms/step - loss: 0.6133 - accuracy: 0.6906
Epoch 73/75
77/77 [=====] - 0s 2ms/step - loss: 0.6115 - accuracy: 0.6954
Epoch 74/75
77/77 [=====] - 0s 2ms/step - loss: 0.6074 - accuracy: 0.6938
Epoch 75/75
77/77 [=====] - 0s 2ms/step - loss: 0.6083 - accuracy: 0.6922
20/20 [=====] - 0s 1ms/step - loss: 0.5954 - accuracy: 0.7143
Epoch 1/75
77/77 [=====] - 1s 1ms/step - loss: 2.7445 - accuracy: 0.6221
Epoch 2/75
77/77 [=====] - 0s 2ms/step - loss: 1.6447 - accuracy: 0.6678
Epoch 3/75
77/77 [=====] - 0s 1ms/step - loss: 1.3714 - accuracy: 0.6564
Epoch 4/75
77/77 [=====] - 0s 2ms/step - loss: 1.1705 - accuracy: 0.6775
Epoch 5/75
77/77 [=====] - 0s 2ms/step - loss: 1.0241 - accuracy: 0.6710
Epoch 6/75
77/77 [=====] - 0s 2ms/step - loss: 0.9229 - accuracy: 0.6857
Epoch 7/75
77/77 [=====] - 0s 2ms/step - loss: 0.8405 - accuracy: 0.6743
Epoch 8/75
77/77 [=====] - 0s 1ms/step - loss: 0.7862 - accuracy: 0.7068
Epoch 9/75
77/77 [=====] - 0s 2ms/step - loss: 0.7353 - accuracy: 0.6922
Epoch 10/75
77/77 [=====] - 0s 2ms/step - loss: 0.7136 - accuracy: 0.7134
Epoch 11/75
77/77 [=====] - 0s 2ms/step - loss: 0.6863 - accuracy: 0.7036
Epoch 12/75
77/77 [=====] - 0s 1ms/step - loss: 0.6706 - accuracy: 0.6971
Epoch 13/75
77/77 [=====] - 0s 2ms/step - loss: 0.6562 - accuracy: 0.6922
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Epoch 14/75
77/77 [=====] - 0s 3ms/step - loss: 0.6492 - accuracy: 0.7166
Epoch 15/75
77/77 [=====] - 0s 2ms/step - loss: 0.6442 - accuracy: 0.6857
Epoch 16/75
77/77 [=====] - 0s 1ms/step - loss: 0.6392 - accuracy: 0.6873
Epoch 17/75
77/77 [=====] - 0s 1ms/step - loss: 0.6377 - accuracy: 0.7003
Epoch 18/75
77/77 [=====] - 0s 2ms/step - loss: 0.6283 - accuracy: 0.6971
Epoch 19/75
77/77 [=====] - 0s 2ms/step - loss: 0.6261 - accuracy: 0.6938
Epoch 20/75
77/77 [=====] - 0s 2ms/step - loss: 0.6229 - accuracy: 0.6906
Epoch 21/75
77/77 [=====] - 0s 2ms/step - loss: 0.6212 - accuracy: 0.7003
Epoch 22/75
77/77 [=====] - 0s 2ms/step - loss: 0.6202 - accuracy: 0.6938
Epoch 23/75
77/77 [=====] - 0s 1ms/step - loss: 0.6090 - accuracy: 0.7199
Epoch 24/75
77/77 [=====] - 0s 1ms/step - loss: 0.6154 - accuracy: 0.6906
Epoch 25/75
77/77 [=====] - 0s 2ms/step - loss: 0.6116 - accuracy: 0.6987
Epoch 26/75
77/77 [=====] - 0s 2ms/step - loss: 0.6085 - accuracy: 0.6840
Epoch 27/75
77/77 [=====] - 0s 2ms/step - loss: 0.6166 - accuracy: 0.6938
Epoch 28/75
77/77 [=====] - 0s 2ms/step - loss: 0.6098 - accuracy: 0.7068
Epoch 29/75
77/77 [=====] - 0s 1ms/step - loss: 0.6125 - accuracy: 0.6857
Epoch 30/75
77/77 [=====] - 0s 1ms/step - loss: 0.6064 - accuracy: 0.7036
Epoch 31/75
77/77 [=====] - 0s 2ms/step - loss: 0.6103 - accuracy: 0.7101
Epoch 32/75
77/77 [=====] - 0s 2ms/step - loss: 0.6103 - accuracy: 0.7117
Epoch 33/75
77/77 [=====] - 0s 3ms/step - loss: 0.6051 - accuracy: 0.7085
Epoch 34/75
77/77 [=====] - 0s 2ms/step - loss: 0.6052 - accuracy: 0.6889
Epoch 35/75
77/77 [=====] - 0s 2ms/step - loss: 0.6067 - accuracy: 0.6971
Epoch 36/75
77/77 [=====] - 0s 1ms/step - loss: 0.6093 - accuracy: 0.6857
Epoch 37/75
77/77 [=====] - 0s 2ms/step - loss: 0.5976 - accuracy: 0.7101
Epoch 38/75
77/77 [=====] - 0s 2ms/step - loss: 0.6079 - accuracy: 0.6938
Epoch 39/75
77/77 [=====] - 0s 1ms/step - loss: 0.6030 - accuracy: 0.7036
Epoch 40/75
77/77 [=====] - 0s 2ms/step - loss: 0.6013 - accuracy: 0.6938
Epoch 41/75
77/77 [=====] - 0s 2ms/step - loss: 0.5963 - accuracy: 0.7052
Epoch 42/75
77/77 [=====] - 0s 2ms/step - loss: 0.5960 - accuracy: 0.7020
Epoch 43/75
77/77 [=====] - 0s 2ms/step - loss: 0.5986 - accuracy: 0.7052
Epoch 44/75
77/77 [=====] - 0s 2ms/step - loss: 0.6061 - accuracy: 0.7003
Epoch 45/75
77/77 [=====] - 0s 2ms/step - loss: 0.6039 - accuracy: 0.7003
Epoch 46/75
77/77 [=====] - 0s 2ms/step - loss: 0.5928 - accuracy: 0.7036
Epoch 47/75
77/77 [=====] - 0s 3ms/step - loss: 0.5914 - accuracy: 0.7117
Epoch 48/75
77/77 [=====] - 0s 2ms/step - loss: 0.6037 - accuracy: 0.6873
Epoch 49/75
77/77 [=====] - 0s 2ms/step - loss: 0.5973 - accuracy: 0.7003
Epoch 50/75
77/77 [=====] - 0s 2ms/step - loss: 0.5976 - accuracy: 0.7036
Epoch 51/75
77/77 [=====] - 0s 2ms/step - loss: 0.5910 - accuracy: 0.7068
Epoch 52/75
77/77 [=====] - 0s 1ms/step - loss: 0.5965 - accuracy: 0.7020
Epoch 53/75
77/77 [=====] - 0s 2ms/step - loss: 0.5975 - accuracy: 0.6971
Epoch 54/75
77/77 [=====] - 0s 2ms/step - loss: 0.5855 - accuracy: 0.7036
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Epoch 55/75
77/77 [=====] - 0s 2ms/step - loss: 0.5986 - accuracy: 0.7036
Epoch 56/75
77/77 [=====] - 0s 2ms/step - loss: 0.5958 - accuracy: 0.7003
Epoch 57/75
77/77 [=====] - 0s 2ms/step - loss: 0.5920 - accuracy: 0.6938
Epoch 58/75
77/77 [=====] - 0s 3ms/step - loss: 0.5909 - accuracy: 0.7036
Epoch 59/75
77/77 [=====] - 0s 2ms/step - loss: 0.5966 - accuracy: 0.7020
Epoch 60/75
77/77 [=====] - 0s 2ms/step - loss: 0.6059 - accuracy: 0.7003
Epoch 61/75
77/77 [=====] - 0s 2ms/step - loss: 0.6034 - accuracy: 0.6873
Epoch 62/75
77/77 [=====] - 0s 2ms/step - loss: 0.5943 - accuracy: 0.7199
Epoch 63/75
77/77 [=====] - 0s 2ms/step - loss: 0.5874 - accuracy: 0.7150
Epoch 64/75
77/77 [=====] - 0s 2ms/step - loss: 0.5979 - accuracy: 0.7036
Epoch 65/75
77/77 [=====] - 0s 2ms/step - loss: 0.5881 - accuracy: 0.7052
Epoch 66/75
77/77 [=====] - 0s 2ms/step - loss: 0.5850 - accuracy: 0.7231
Epoch 67/75
77/77 [=====] - 0s 2ms/step - loss: 0.6003 - accuracy: 0.7036
Epoch 68/75
77/77 [=====] - 0s 3ms/step - loss: 0.5912 - accuracy: 0.7085
Epoch 69/75
77/77 [=====] - 0s 1ms/step - loss: 0.5874 - accuracy: 0.7117
Epoch 70/75
77/77 [=====] - 0s 2ms/step - loss: 0.6000 - accuracy: 0.7003
Epoch 71/75
77/77 [=====] - 0s 2ms/step - loss: 0.5851 - accuracy: 0.7215
Epoch 72/75
77/77 [=====] - 0s 2ms/step - loss: 0.5858 - accuracy: 0.7036
Epoch 73/75
77/77 [=====] - 0s 2ms/step - loss: 0.5905 - accuracy: 0.7020
Epoch 74/75
77/77 [=====] - 0s 2ms/step - loss: 0.5883 - accuracy: 0.7215
Epoch 75/75
77/77 [=====] - 0s 2ms/step - loss: 0.5944 - accuracy: 0.7101
20/20 [=====] - 0s 2ms/step - loss: 0.6490 - accuracy: 0.6818
Epoch 1/75
77/77 [=====] - 1s 1ms/step - loss: 2.2474 - accuracy: 0.6417
Epoch 2/75
77/77 [=====] - 0s 2ms/step - loss: 1.5879 - accuracy: 0.6564
Epoch 3/75
77/77 [=====] - 0s 1ms/step - loss: 1.3324 - accuracy: 0.6580
Epoch 4/75
77/77 [=====] - 0s 1ms/step - loss: 1.1499 - accuracy: 0.6564
Epoch 5/75
77/77 [=====] - 0s 2ms/step - loss: 1.0117 - accuracy: 0.6564
Epoch 6/75
77/77 [=====] - 0s 1ms/step - loss: 0.9051 - accuracy: 0.6564
Epoch 7/75
77/77 [=====] - 0s 1ms/step - loss: 0.8335 - accuracy: 0.6564
Epoch 8/75
77/77 [=====] - 0s 2ms/step - loss: 0.7845 - accuracy: 0.6564
Epoch 9/75
77/77 [=====] - 0s 2ms/step - loss: 0.7478 - accuracy: 0.6564
Epoch 10/75
77/77 [=====] - 0s 1ms/step - loss: 0.7178 - accuracy: 0.6564
Epoch 11/75
77/77 [=====] - 0s 2ms/step - loss: 0.6981 - accuracy: 0.6564
Epoch 12/75
77/77 [=====] - 0s 1ms/step - loss: 0.6814 - accuracy: 0.6564
Epoch 13/75
77/77 [=====] - 0s 1ms/step - loss: 0.6781 - accuracy: 0.6564
Epoch 14/75
77/77 [=====] - 0s 2ms/step - loss: 0.6694 - accuracy: 0.6564
Epoch 15/75
77/77 [=====] - 0s 1ms/step - loss: 0.6622 - accuracy: 0.6564
Epoch 16/75
77/77 [=====] - 0s 1ms/step - loss: 0.6544 - accuracy: 0.6564
Epoch 17/75
77/77 [=====] - 0s 2ms/step - loss: 0.6547 - accuracy: 0.6564
Epoch 18/75
77/77 [=====] - 0s 1ms/step - loss: 0.6421 - accuracy: 0.6612
Epoch 19/75
77/77 [=====] - 0s 1ms/step - loss: 0.6477 - accuracy: 0.6564
Epoch 20/75
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77/77 [=====] - 0s 2ms/step - loss: 0.6459 - accuracy: 0.6564
Epoch 21/75
77/77 [=====] - 0s 1ms/step - loss: 0.6466 - accuracy: 0.6564
Epoch 22/75
77/77 [=====] - 0s 1ms/step - loss: 0.6431 - accuracy: 0.6564
Epoch 23/75
77/77 [=====] - 0s 2ms/step - loss: 0.6444 - accuracy: 0.6564
Epoch 24/75
77/77 [=====] - 0s 3ms/step - loss: 0.6417 - accuracy: 0.6564
Epoch 25/75
77/77 [=====] - 0s 2ms/step - loss: 0.6417 - accuracy: 0.6564
Epoch 26/75
77/77 [=====] - 0s 2ms/step - loss: 0.6349 - accuracy: 0.6564
Epoch 27/75
77/77 [=====] - 0s 2ms/step - loss: 0.6399 - accuracy: 0.6564
Epoch 28/75
77/77 [=====] - 0s 2ms/step - loss: 0.6342 - accuracy: 0.6564
Epoch 29/75
77/77 [=====] - 0s 2ms/step - loss: 0.6414 - accuracy: 0.6564
Epoch 30/75
77/77 [=====] - 0s 2ms/step - loss: 0.6415 - accuracy: 0.6564
Epoch 31/75
77/77 [=====] - 0s 2ms/step - loss: 0.6415 - accuracy: 0.6564
Epoch 32/75
77/77 [=====] - 0s 2ms/step - loss: 0.6357 - accuracy: 0.6564
Epoch 33/75
77/77 [=====] - 0s 2ms/step - loss: 0.6325 - accuracy: 0.6564
Epoch 34/75
77/77 [=====] - 0s 1ms/step - loss: 0.6380 - accuracy: 0.6564
Epoch 35/75
77/77 [=====] - 0s 2ms/step - loss: 0.6338 - accuracy: 0.6564
Epoch 36/75
77/77 [=====] - 0s 2ms/step - loss: 0.6370 - accuracy: 0.6564
Epoch 37/75
77/77 [=====] - 0s 2ms/step - loss: 0.6397 - accuracy: 0.6564
Epoch 38/75
77/77 [=====] - 0s 2ms/step - loss: 0.6394 - accuracy: 0.6564
Epoch 39/75
77/77 [=====] - 0s 2ms/step - loss: 0.6307 - accuracy: 0.6564
Epoch 40/75
77/77 [=====] - 0s 1ms/step - loss: 0.6357 - accuracy: 0.6564
Epoch 41/75
77/77 [=====] - 0s 2ms/step - loss: 0.6333 - accuracy: 0.6564
Epoch 42/75
77/77 [=====] - 0s 2ms/step - loss: 0.6322 - accuracy: 0.6564
Epoch 43/75
77/77 [=====] - 0s 2ms/step - loss: 0.6344 - accuracy: 0.6564
Epoch 44/75
77/77 [=====] - 0s 2ms/step - loss: 0.6351 - accuracy: 0.6564
Epoch 45/75
77/77 [=====] - 0s 2ms/step - loss: 0.6293 - accuracy: 0.6564
Epoch 46/75
77/77 [=====] - 0s 2ms/step - loss: 0.6358 - accuracy: 0.6564
Epoch 47/75
77/77 [=====] - 0s 2ms/step - loss: 0.6295 - accuracy: 0.6564
Epoch 48/75
77/77 [=====] - 0s 2ms/step - loss: 0.6357 - accuracy: 0.6564
Epoch 49/75
77/77 [=====] - 0s 2ms/step - loss: 0.6342 - accuracy: 0.6564
Epoch 50/75
77/77 [=====] - 0s 2ms/step - loss: 0.6316 - accuracy: 0.6564
Epoch 51/75
77/77 [=====] - 0s 2ms/step - loss: 0.6322 - accuracy: 0.6564
Epoch 52/75
77/77 [=====] - 0s 3ms/step - loss: 0.6293 - accuracy: 0.6564
Epoch 53/75
77/77 [=====] - 0s 2ms/step - loss: 0.6354 - accuracy: 0.6564
Epoch 54/75
77/77 [=====] - 0s 2ms/step - loss: 0.6358 - accuracy: 0.6564
Epoch 55/75
77/77 [=====] - 0s 2ms/step - loss: 0.6274 - accuracy: 0.6564
Epoch 56/75
77/77 [=====] - 0s 2ms/step - loss: 0.6331 - accuracy: 0.6564
Epoch 57/75
77/77 [=====] - 0s 2ms/step - loss: 0.6362 - accuracy: 0.6564
Epoch 58/75
77/77 [=====] - 0s 2ms/step - loss: 0.6339 - accuracy: 0.6564
Epoch 59/75
77/77 [=====] - 0s 2ms/step - loss: 0.6317 - accuracy: 0.6564
Epoch 60/75
77/77 [=====] - 0s 2ms/step - loss: 0.6340 - accuracy: 0.6564
Epoch 61/75


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77/77 [=====] - 0s 2ms/step - loss: 0.6309 - accuracy: 0.6564
Epoch 62/75
77/77 [=====] - 0s 2ms/step - loss: 0.6310 - accuracy: 0.6564
Epoch 63/75
77/77 [=====] - 0s 2ms/step - loss: 0.6282 - accuracy: 0.6564
Epoch 64/75
77/77 [=====] - 0s 2ms/step - loss: 0.6295 - accuracy: 0.6564
Epoch 65/75
77/77 [=====] - 0s 2ms/step - loss: 0.6259 - accuracy: 0.6564
Epoch 66/75
77/77 [=====] - 0s 1ms/step - loss: 0.6308 - accuracy: 0.6564
Epoch 67/75
77/77 [=====] - 0s 2ms/step - loss: 0.6289 - accuracy: 0.6564
Epoch 68/75
77/77 [=====] - 0s 2ms/step - loss: 0.6254 - accuracy: 0.6564
Epoch 69/75
77/77 [=====] - 0s 2ms/step - loss: 0.6295 - accuracy: 0.6564
Epoch 70/75
77/77 [=====] - 0s 2ms/step - loss: 0.6253 - accuracy: 0.6564
Epoch 71/75
77/77 [=====] - 0s 1ms/step - loss: 0.6269 - accuracy: 0.6564
Epoch 72/75
77/77 [=====] - 0s 2ms/step - loss: 0.6238 - accuracy: 0.6564
Epoch 73/75
77/77 [=====] - 0s 2ms/step - loss: 0.6215 - accuracy: 0.6564
Epoch 74/75
77/77 [=====] - 0s 2ms/step - loss: 0.6234 - accuracy: 0.6564
Epoch 75/75
77/77 [=====] - 0s 2ms/step - loss: 0.6277 - accuracy: 0.6564
20/20 [=====] - 0s 1ms/step - loss: 0.6387 - accuracy: 0.6299
Epoch 1/75
77/77 [=====] - 1s 1ms/step - loss: 2.0450 - accuracy: 0.6146
Epoch 2/75
77/77 [=====] - 0s 2ms/step - loss: 1.5017 - accuracy: 0.6341
Epoch 3/75
77/77 [=====] - 0s 1ms/step - loss: 1.2611 - accuracy: 0.6358
Epoch 4/75
77/77 [=====] - 0s 2ms/step - loss: 1.0897 - accuracy: 0.6569
Epoch 5/75
77/77 [=====] - 0s 2ms/step - loss: 0.9798 - accuracy: 0.6439
Epoch 6/75
77/77 [=====] - 0s 2ms/step - loss: 0.8870 - accuracy: 0.6325
Epoch 7/75
77/77 [=====] - 0s 2ms/step - loss: 0.8265 - accuracy: 0.6715
Epoch 8/75
77/77 [=====] - 0s 2ms/step - loss: 0.7841 - accuracy: 0.6569
Epoch 9/75
77/77 [=====] - 0s 2ms/step - loss: 0.7395 - accuracy: 0.6504
Epoch 10/75
77/77 [=====] - 0s 2ms/step - loss: 0.7220 - accuracy: 0.6602
Epoch 11/75
77/77 [=====] - 0s 2ms/step - loss: 0.7069 - accuracy: 0.6537
Epoch 12/75
77/77 [=====] - 0s 2ms/step - loss: 0.6881 - accuracy: 0.6585
Epoch 13/75
77/77 [=====] - 0s 2ms/step - loss: 0.6785 - accuracy: 0.6504
Epoch 14/75
77/77 [=====] - 0s 2ms/step - loss: 0.6747 - accuracy: 0.6537
Epoch 15/75
77/77 [=====] - 0s 2ms/step - loss: 0.6653 - accuracy: 0.6618
Epoch 16/75
77/77 [=====] - 0s 2ms/step - loss: 0.6606 - accuracy: 0.6715
Epoch 17/75
77/77 [=====] - 0s 1ms/step - loss: 0.6614 - accuracy: 0.6585
Epoch 18/75
77/77 [=====] - 0s 1ms/step - loss: 0.6499 - accuracy: 0.6715
Epoch 19/75
77/77 [=====] - 0s 2ms/step - loss: 0.6574 - accuracy: 0.6520
Epoch 20/75
77/77 [=====] - 0s 1ms/step - loss: 0.6462 - accuracy: 0.6699
Epoch 21/75
77/77 [=====] - 0s 2ms/step - loss: 0.6445 - accuracy: 0.6488
Epoch 22/75
77/77 [=====] - 0s 2ms/step - loss: 0.6459 - accuracy: 0.6699
Epoch 23/75
77/77 [=====] - 0s 1ms/step - loss: 0.6415 - accuracy: 0.6423
Epoch 24/75
77/77 [=====] - 0s 3ms/step - loss: 0.6401 - accuracy: 0.6650
Epoch 25/75
77/77 [=====] - 0s 2ms/step - loss: 0.6480 - accuracy: 0.6488
Epoch 26/75
77/77 [=====] - 0s 2ms/step - loss: 0.6429 - accuracy: 0.6667
```

Epoch 27/75
77/77 [=====] - 0s 1ms/step - loss: 0.6421 - accuracy: 0.6585
Epoch 28/75
77/77 [=====] - 0s 2ms/step - loss: 0.6382 - accuracy: 0.6650
Epoch 29/75
77/77 [=====] - 0s 2ms/step - loss: 0.6361 - accuracy: 0.6748
Epoch 30/75
77/77 [=====] - 0s 2ms/step - loss: 0.6458 - accuracy: 0.6650
Epoch 31/75
77/77 [=====] - 0s 1ms/step - loss: 0.6437 - accuracy: 0.6618
Epoch 32/75
77/77 [=====] - 0s 2ms/step - loss: 0.6379 - accuracy: 0.6683
Epoch 33/75
77/77 [=====] - 0s 1ms/step - loss: 0.6381 - accuracy: 0.6602
Epoch 34/75
77/77 [=====] - 0s 2ms/step - loss: 0.6364 - accuracy: 0.6553
Epoch 35/75
77/77 [=====] - 0s 3ms/step - loss: 0.6389 - accuracy: 0.6650
Epoch 36/75
77/77 [=====] - 0s 1ms/step - loss: 0.6387 - accuracy: 0.6667
Epoch 37/75
77/77 [=====] - 0s 2ms/step - loss: 0.6369 - accuracy: 0.6634
Epoch 38/75
77/77 [=====] - 0s 1ms/step - loss: 0.6357 - accuracy: 0.6537
Epoch 39/75
77/77 [=====] - 0s 2ms/step - loss: 0.6390 - accuracy: 0.6569
Epoch 40/75
77/77 [=====] - 0s 2ms/step - loss: 0.6356 - accuracy: 0.6650
Epoch 41/75
77/77 [=====] - 0s 1ms/step - loss: 0.6325 - accuracy: 0.6585
Epoch 42/75
77/77 [=====] - 0s 1ms/step - loss: 0.6310 - accuracy: 0.6553
Epoch 43/75
77/77 [=====] - 0s 2ms/step - loss: 0.6442 - accuracy: 0.6634
Epoch 44/75
77/77 [=====] - 0s 2ms/step - loss: 0.6323 - accuracy: 0.6602
Epoch 45/75
77/77 [=====] - 0s 2ms/step - loss: 0.6377 - accuracy: 0.6585
Epoch 46/75
77/77 [=====] - 0s 2ms/step - loss: 0.6312 - accuracy: 0.6699
Epoch 47/75
77/77 [=====] - 0s 1ms/step - loss: 0.6331 - accuracy: 0.6504
Epoch 48/75
77/77 [=====] - 0s 1ms/step - loss: 0.6253 - accuracy: 0.6846
Epoch 49/75
77/77 [=====] - 0s 2ms/step - loss: 0.6380 - accuracy: 0.6585
Epoch 50/75
77/77 [=====] - 0s 1ms/step - loss: 0.6348 - accuracy: 0.6488
Epoch 51/75
77/77 [=====] - 0s 1ms/step - loss: 0.6289 - accuracy: 0.6780
Epoch 52/75
77/77 [=====] - 0s 2ms/step - loss: 0.6335 - accuracy: 0.6618
Epoch 53/75
77/77 [=====] - 0s 2ms/step - loss: 0.6322 - accuracy: 0.6585
Epoch 54/75
77/77 [=====] - 0s 2ms/step - loss: 0.6338 - accuracy: 0.6764
Epoch 55/75
77/77 [=====] - 0s 2ms/step - loss: 0.6340 - accuracy: 0.6504
Epoch 56/75
77/77 [=====] - 0s 2ms/step - loss: 0.6342 - accuracy: 0.6585
Epoch 57/75
77/77 [=====] - 0s 2ms/step - loss: 0.6311 - accuracy: 0.6585
Epoch 58/75
77/77 [=====] - 0s 1ms/step - loss: 0.6218 - accuracy: 0.6602
Epoch 59/75
77/77 [=====] - 0s 2ms/step - loss: 0.6239 - accuracy: 0.6618
Epoch 60/75
77/77 [=====] - 0s 2ms/step - loss: 0.6321 - accuracy: 0.6667
Epoch 61/75
77/77 [=====] - 0s 2ms/step - loss: 0.6303 - accuracy: 0.6553
Epoch 62/75
77/77 [=====] - 0s 1ms/step - loss: 0.6334 - accuracy: 0.6520
Epoch 63/75
77/77 [=====] - 0s 2ms/step - loss: 0.6146 - accuracy: 0.6797
Epoch 64/75
77/77 [=====] - 0s 1ms/step - loss: 0.6268 - accuracy: 0.6715
Epoch 65/75
77/77 [=====] - 0s 1ms/step - loss: 0.6325 - accuracy: 0.6683
Epoch 66/75
77/77 [=====] - 0s 3ms/step - loss: 0.6299 - accuracy: 0.6602
Epoch 67/75
77/77 [=====] - 0s 2ms/step - loss: 0.6205 - accuracy: 0.6634

Epoch 68/75
77/77 [=====] - 0s 2ms/step - loss: 0.6304 - accuracy: 0.6618
Epoch 69/75
77/77 [=====] - 0s 1ms/step - loss: 0.6224 - accuracy: 0.6780
Epoch 70/75
77/77 [=====] - 0s 2ms/step - loss: 0.6143 - accuracy: 0.6732
Epoch 71/75
77/77 [=====] - 0s 2ms/step - loss: 0.6302 - accuracy: 0.6667
Epoch 72/75
77/77 [=====] - 0s 1ms/step - loss: 0.6288 - accuracy: 0.6553
Epoch 73/75
77/77 [=====] - 0s 2ms/step - loss: 0.6231 - accuracy: 0.6878
Epoch 74/75
77/77 [=====] - 0s 1ms/step - loss: 0.6242 - accuracy: 0.6634
Epoch 75/75
77/77 [=====] - 0s 1ms/step - loss: 0.6287 - accuracy: 0.6829
20/20 [=====] - 0s 1ms/step - loss: 0.5608 - accuracy: 0.7582
Epoch 1/75
77/77 [=====] - 0s 2ms/step - loss: 2.3736 - accuracy: 0.6374
Epoch 2/75
77/77 [=====] - 0s 1ms/step - loss: 1.7021 - accuracy: 0.6537
Epoch 3/75
77/77 [=====] - 0s 2ms/step - loss: 1.4209 - accuracy: 0.6537
Epoch 4/75
77/77 [=====] - 0s 2ms/step - loss: 1.2117 - accuracy: 0.6537
Epoch 5/75
77/77 [=====] - 0s 1ms/step - loss: 1.0584 - accuracy: 0.6520
Epoch 6/75
77/77 [=====] - 0s 2ms/step - loss: 0.9446 - accuracy: 0.6537
Epoch 7/75
77/77 [=====] - 0s 1ms/step - loss: 0.8623 - accuracy: 0.6553
Epoch 8/75
77/77 [=====] - 0s 1ms/step - loss: 0.8061 - accuracy: 0.6504
Epoch 9/75
77/77 [=====] - 0s 2ms/step - loss: 0.7661 - accuracy: 0.6504
Epoch 10/75
77/77 [=====] - 0s 1ms/step - loss: 0.7310 - accuracy: 0.6504
Epoch 11/75
77/77 [=====] - 0s 1ms/step - loss: 0.7057 - accuracy: 0.6553
Epoch 12/75
77/77 [=====] - 0s 2ms/step - loss: 0.6923 - accuracy: 0.6488
Epoch 13/75
77/77 [=====] - 0s 2ms/step - loss: 0.6737 - accuracy: 0.6553
Epoch 14/75
77/77 [=====] - 0s 2ms/step - loss: 0.6730 - accuracy: 0.6520
Epoch 15/75
77/77 [=====] - 0s 1ms/step - loss: 0.6586 - accuracy: 0.6504
Epoch 16/75
77/77 [=====] - 0s 2ms/step - loss: 0.6519 - accuracy: 0.6634
Epoch 17/75
77/77 [=====] - 0s 2ms/step - loss: 0.6517 - accuracy: 0.6504
Epoch 18/75
77/77 [=====] - 0s 1ms/step - loss: 0.6470 - accuracy: 0.6537
Epoch 19/75
77/77 [=====] - 0s 2ms/step - loss: 0.6465 - accuracy: 0.6504
Epoch 20/75
77/77 [=====] - 0s 2ms/step - loss: 0.6512 - accuracy: 0.6585
Epoch 21/75
77/77 [=====] - 0s 1ms/step - loss: 0.6394 - accuracy: 0.6520
Epoch 22/75
77/77 [=====] - 0s 2ms/step - loss: 0.6371 - accuracy: 0.6683
Epoch 23/75
77/77 [=====] - 0s 2ms/step - loss: 0.6526 - accuracy: 0.6520
Epoch 24/75
77/77 [=====] - 0s 1ms/step - loss: 0.6436 - accuracy: 0.6520
Epoch 25/75
77/77 [=====] - 0s 2ms/step - loss: 0.6398 - accuracy: 0.6520
Epoch 26/75
77/77 [=====] - 0s 1ms/step - loss: 0.6422 - accuracy: 0.6520
Epoch 27/75
77/77 [=====] - 0s 1ms/step - loss: 0.6471 - accuracy: 0.6520
Epoch 28/75
77/77 [=====] - 0s 2ms/step - loss: 0.6399 - accuracy: 0.6520
Epoch 29/75
77/77 [=====] - 0s 1ms/step - loss: 0.6418 - accuracy: 0.6520
Epoch 30/75
77/77 [=====] - 0s 1ms/step - loss: 0.6403 - accuracy: 0.6520
Epoch 31/75
77/77 [=====] - 0s 2ms/step - loss: 0.6427 - accuracy: 0.6520
Epoch 32/75
77/77 [=====] - 0s 2ms/step - loss: 0.6453 - accuracy: 0.6520
Epoch 33/75

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77/77 [=====] - 0s 1ms/step - loss: 0.6391 - accuracy: 0.6520
Epoch 34/75
77/77 [=====] - 0s 2ms/step - loss: 0.6445 - accuracy: 0.6520
Epoch 35/75
77/77 [=====] - 0s 1ms/step - loss: 0.6404 - accuracy: 0.6520
Epoch 36/75
77/77 [=====] - 0s 2ms/step - loss: 0.6430 - accuracy: 0.6520
Epoch 37/75
77/77 [=====] - 0s 1ms/step - loss: 0.6442 - accuracy: 0.6520
Epoch 38/75
77/77 [=====] - 0s 1ms/step - loss: 0.6415 - accuracy: 0.6520
Epoch 39/75
77/77 [=====] - 0s 2ms/step - loss: 0.6440 - accuracy: 0.6520
Epoch 40/75
77/77 [=====] - 0s 1ms/step - loss: 0.6447 - accuracy: 0.6520
Epoch 41/75
77/77 [=====] - 0s 3ms/step - loss: 0.6432 - accuracy: 0.6520
Epoch 42/75
77/77 [=====] - 0s 1ms/step - loss: 0.6447 - accuracy: 0.6520
Epoch 43/75
77/77 [=====] - 0s 1ms/step - loss: 0.6415 - accuracy: 0.6520
Epoch 44/75
77/77 [=====] - 0s 2ms/step - loss: 0.6430 - accuracy: 0.6520
Epoch 45/75
77/77 [=====] - 0s 1ms/step - loss: 0.6379 - accuracy: 0.6520
Epoch 46/75
77/77 [=====] - 0s 1ms/step - loss: 0.6432 - accuracy: 0.6520
Epoch 47/75
77/77 [=====] - 0s 2ms/step - loss: 0.6418 - accuracy: 0.6520
Epoch 48/75
77/77 [=====] - 0s 1ms/step - loss: 0.6451 - accuracy: 0.6520
Epoch 49/75
77/77 [=====] - 0s 1ms/step - loss: 0.6410 - accuracy: 0.6520
Epoch 50/75
77/77 [=====] - 0s 2ms/step - loss: 0.6461 - accuracy: 0.6520
Epoch 51/75
77/77 [=====] - 0s 2ms/step - loss: 0.6417 - accuracy: 0.6520
Epoch 52/75
77/77 [=====] - 0s 2ms/step - loss: 0.6438 - accuracy: 0.6520
Epoch 53/75
77/77 [=====] - 0s 1ms/step - loss: 0.6348 - accuracy: 0.6520
Epoch 54/75
77/77 [=====] - 0s 1ms/step - loss: 0.6435 - accuracy: 0.6520
Epoch 55/75
77/77 [=====] - 0s 2ms/step - loss: 0.6480 - accuracy: 0.6520
Epoch 56/75
77/77 [=====] - 0s 2ms/step - loss: 0.6426 - accuracy: 0.6520
Epoch 57/75
77/77 [=====] - 0s 3ms/step - loss: 0.6413 - accuracy: 0.6520
Epoch 58/75
77/77 [=====] - 0s 2ms/step - loss: 0.6387 - accuracy: 0.6520
Epoch 59/75
77/77 [=====] - 0s 1ms/step - loss: 0.6356 - accuracy: 0.6520
Epoch 60/75
77/77 [=====] - 0s 2ms/step - loss: 0.6429 - accuracy: 0.6520
Epoch 61/75
77/77 [=====] - 0s 2ms/step - loss: 0.6417 - accuracy: 0.6520
Epoch 62/75
77/77 [=====] - 0s 2ms/step - loss: 0.6382 - accuracy: 0.6520
Epoch 63/75
77/77 [=====] - 0s 1ms/step - loss: 0.6435 - accuracy: 0.6520
Epoch 64/75
77/77 [=====] - 0s 1ms/step - loss: 0.6470 - accuracy: 0.6520
Epoch 65/75
77/77 [=====] - 0s 2ms/step - loss: 0.6453 - accuracy: 0.6520
Epoch 66/75
77/77 [=====] - 0s 1ms/step - loss: 0.6465 - accuracy: 0.6520
Epoch 67/75
77/77 [=====] - 0s 1ms/step - loss: 0.6466 - accuracy: 0.6520
Epoch 68/75
77/77 [=====] - 0s 2ms/step - loss: 0.6441 - accuracy: 0.6520
Epoch 69/75
77/77 [=====] - 0s 2ms/step - loss: 0.6424 - accuracy: 0.6520
Epoch 70/75
77/77 [=====] - 0s 2ms/step - loss: 0.6461 - accuracy: 0.6520
Epoch 71/75
77/77 [=====] - 0s 2ms/step - loss: 0.6404 - accuracy: 0.6520
Epoch 72/75
77/77 [=====] - 0s 1ms/step - loss: 0.6483 - accuracy: 0.6520
Epoch 73/75
77/77 [=====] - 0s 1ms/step - loss: 0.6415 - accuracy: 0.6520
Epoch 74/75
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77/77 [=====] - 0s 2ms/step - loss: 0.6453 - accuracy: 0.6520
Epoch 75/75
77/77 [=====] - 0s 1ms/step - loss: 0.6400 - accuracy: 0.6520
20/20 [=====] - 0s 1ms/step - loss: 0.6439 - accuracy: 0.6471
Epoch 1/75
77/77 [=====] - 0s 2ms/step - loss: 5.7384 - accuracy: 0.6107
Epoch 2/75
77/77 [=====] - 0s 1ms/step - loss: 1.4966 - accuracy: 0.6515
Epoch 3/75
77/77 [=====] - 0s 2ms/step - loss: 0.8456 - accuracy: 0.6515
Epoch 4/75
77/77 [=====] - 0s 2ms/step - loss: 0.7063 - accuracy: 0.6515
Epoch 5/75
77/77 [=====] - 0s 2ms/step - loss: 0.6715 - accuracy: 0.6515
Epoch 6/75
77/77 [=====] - 0s 3ms/step - loss: 0.6637 - accuracy: 0.6515
Epoch 7/75
77/77 [=====] - 0s 2ms/step - loss: 0.6575 - accuracy: 0.6515
Epoch 8/75
77/77 [=====] - 0s 1ms/step - loss: 0.6559 - accuracy: 0.6515
Epoch 9/75
77/77 [=====] - 0s 2ms/step - loss: 0.6537 - accuracy: 0.6515
Epoch 10/75
77/77 [=====] - 0s 1ms/step - loss: 0.6518 - accuracy: 0.6515
Epoch 11/75
77/77 [=====] - 0s 1ms/step - loss: 0.6502 - accuracy: 0.6515
Epoch 12/75
77/77 [=====] - 0s 2ms/step - loss: 0.6492 - accuracy: 0.6515
Epoch 13/75
77/77 [=====] - 0s 1ms/step - loss: 0.6480 - accuracy: 0.6515
Epoch 14/75
77/77 [=====] - 0s 1ms/step - loss: 0.6473 - accuracy: 0.6515
Epoch 15/75
77/77 [=====] - 0s 2ms/step - loss: 0.6465 - accuracy: 0.6515
Epoch 16/75
77/77 [=====] - 0s 1ms/step - loss: 0.6461 - accuracy: 0.6515
Epoch 17/75
77/77 [=====] - 0s 2ms/step - loss: 0.6461 - accuracy: 0.6515
Epoch 18/75
77/77 [=====] - 0s 3ms/step - loss: 0.6462 - accuracy: 0.6515
Epoch 19/75
77/77 [=====] - 0s 2ms/step - loss: 0.6452 - accuracy: 0.6515
Epoch 20/75
77/77 [=====] - 0s 2ms/step - loss: 0.6455 - accuracy: 0.6515
Epoch 21/75
77/77 [=====] - 0s 1ms/step - loss: 0.6455 - accuracy: 0.6515
Epoch 22/75
77/77 [=====] - 0s 2ms/step - loss: 0.6451 - accuracy: 0.6515
Epoch 23/75
77/77 [=====] - 0s 2ms/step - loss: 0.6454 - accuracy: 0.6515
Epoch 24/75
77/77 [=====] - 0s 1ms/step - loss: 0.6445 - accuracy: 0.6515
Epoch 25/75
77/77 [=====] - 0s 1ms/step - loss: 0.6450 - accuracy: 0.6515
Epoch 26/75
77/77 [=====] - 0s 2ms/step - loss: 0.6437 - accuracy: 0.6515
Epoch 27/75
77/77 [=====] - 0s 2ms/step - loss: 0.6454 - accuracy: 0.6515
Epoch 28/75
77/77 [=====] - 0s 2ms/step - loss: 0.6443 - accuracy: 0.6515
Epoch 29/75
77/77 [=====] - 0s 2ms/step - loss: 0.6454 - accuracy: 0.6515
Epoch 30/75
77/77 [=====] - 0s 1ms/step - loss: 0.6442 - accuracy: 0.6515
Epoch 31/75
77/77 [=====] - 0s 2ms/step - loss: 0.6441 - accuracy: 0.6515
Epoch 32/75
77/77 [=====] - 0s 1ms/step - loss: 0.6441 - accuracy: 0.6515
Epoch 33/75
77/77 [=====] - 0s 1ms/step - loss: 0.6435 - accuracy: 0.6515
Epoch 34/75
77/77 [=====] - 0s 2ms/step - loss: 0.6444 - accuracy: 0.6515
Epoch 35/75
77/77 [=====] - 0s 1ms/step - loss: 0.6436 - accuracy: 0.6515
Epoch 36/75
77/77 [=====] - 0s 1ms/step - loss: 0.6424 - accuracy: 0.6515
Epoch 37/75
77/77 [=====] - 0s 2ms/step - loss: 0.6417 - accuracy: 0.6515
Epoch 38/75
77/77 [=====] - 0s 1ms/step - loss: 0.6421 - accuracy: 0.6515
Epoch 39/75
77/77 [=====] - 0s 2ms/step - loss: 0.6432 - accuracy: 0.6515
```

Epoch 40/75
77/77 [=====] - 0s 1ms/step - loss: 0.6421 - accuracy: 0.6515
Epoch 41/75
77/77 [=====] - 0s 1ms/step - loss: 0.6430 - accuracy: 0.6515
Epoch 42/75
77/77 [=====] - 0s 2ms/step - loss: 0.6428 - accuracy: 0.6515
Epoch 43/75
77/77 [=====] - 0s 2ms/step - loss: 0.6410 - accuracy: 0.6515
Epoch 44/75
77/77 [=====] - 0s 2ms/step - loss: 0.6407 - accuracy: 0.6515
Epoch 45/75
77/77 [=====] - 0s 2ms/step - loss: 0.6416 - accuracy: 0.6498
Epoch 46/75
77/77 [=====] - 0s 1ms/step - loss: 0.6401 - accuracy: 0.6515
Epoch 47/75
77/77 [=====] - 0s 2ms/step - loss: 0.6411 - accuracy: 0.6498
Epoch 48/75
77/77 [=====] - 0s 2ms/step - loss: 0.6417 - accuracy: 0.6531
Epoch 49/75
77/77 [=====] - 0s 2ms/step - loss: 0.6377 - accuracy: 0.6515
Epoch 50/75
77/77 [=====] - 0s 2ms/step - loss: 0.6358 - accuracy: 0.6531
Epoch 51/75
77/77 [=====] - 0s 2ms/step - loss: 0.6405 - accuracy: 0.6515
Epoch 52/75
77/77 [=====] - 0s 2ms/step - loss: 0.6460 - accuracy: 0.6580
Epoch 53/75
77/77 [=====] - 0s 2ms/step - loss: 0.6329 - accuracy: 0.6580
Epoch 54/75
77/77 [=====] - 0s 2ms/step - loss: 0.6409 - accuracy: 0.6580
Epoch 55/75
77/77 [=====] - 0s 2ms/step - loss: 0.6298 - accuracy: 0.6710
Epoch 56/75
77/77 [=====] - 0s 2ms/step - loss: 0.6412 - accuracy: 0.6482
Epoch 57/75
77/77 [=====] - 0s 2ms/step - loss: 0.6370 - accuracy: 0.6498
Epoch 58/75
77/77 [=====] - 0s 2ms/step - loss: 0.6438 - accuracy: 0.6661
Epoch 59/75
77/77 [=====] - 0s 1ms/step - loss: 0.6403 - accuracy: 0.6596
Epoch 60/75
77/77 [=====] - 0s 3ms/step - loss: 0.6381 - accuracy: 0.6645
Epoch 61/75
77/77 [=====] - 0s 1ms/step - loss: 0.6344 - accuracy: 0.6547
Epoch 62/75
77/77 [=====] - 0s 2ms/step - loss: 0.6317 - accuracy: 0.6531
Epoch 63/75
77/77 [=====] - 0s 1ms/step - loss: 0.6292 - accuracy: 0.6759
Epoch 64/75
77/77 [=====] - 0s 2ms/step - loss: 0.6326 - accuracy: 0.6710
Epoch 65/75
77/77 [=====] - 0s 2ms/step - loss: 0.6422 - accuracy: 0.6564
Epoch 66/75
77/77 [=====] - 0s 2ms/step - loss: 0.6306 - accuracy: 0.6612
Epoch 67/75
77/77 [=====] - 0s 2ms/step - loss: 0.6333 - accuracy: 0.6661
Epoch 68/75
77/77 [=====] - 0s 2ms/step - loss: 0.6319 - accuracy: 0.6547
Epoch 69/75
77/77 [=====] - 0s 2ms/step - loss: 0.6387 - accuracy: 0.6645
Epoch 70/75
77/77 [=====] - 0s 1ms/step - loss: 0.6368 - accuracy: 0.6678
Epoch 71/75
77/77 [=====] - 0s 1ms/step - loss: 0.6256 - accuracy: 0.6808
Epoch 72/75
77/77 [=====] - 0s 2ms/step - loss: 0.6351 - accuracy: 0.6743
Epoch 73/75
77/77 [=====] - 0s 1ms/step - loss: 0.6411 - accuracy: 0.6726
Epoch 74/75
77/77 [=====] - 0s 1ms/step - loss: 0.6353 - accuracy: 0.6710
Epoch 75/75
77/77 [=====] - 0s 2ms/step - loss: 0.6375 - accuracy: 0.6645
20/20 [=====] - 0s 1ms/step - loss: 0.6376 - accuracy: 0.6494
Epoch 1/75
77/77 [=====] - 0s 1ms/step - loss: 5.2039 - accuracy: 0.5814
Epoch 2/75
77/77 [=====] - 0s 2ms/step - loss: 1.4189 - accuracy: 0.6678
Epoch 3/75
77/77 [=====] - 0s 1ms/step - loss: 0.8174 - accuracy: 0.6694
Epoch 4/75
77/77 [=====] - 0s 1ms/step - loss: 0.6851 - accuracy: 0.6678
Epoch 5/75

[illegible]

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77/77 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 47/75
77/77 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 48/75
77/77 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 49/75
77/77 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 50/75
77/77 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 51/75
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 52/75
77/77 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 53/75
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 54/75
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 55/75
77/77 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 56/75
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 57/75
77/77 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 58/75
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 59/75
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 60/75
77/77 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 61/75
77/77 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 62/75
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 63/75
77/77 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 64/75
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 65/75
77/77 [=====] - 0s 3ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 66/75
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 67/75
77/77 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 68/75
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 69/75
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 70/75
77/77 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 71/75
77/77 [=====] - 0s 1ms/step - loss: 0.6358 - accuracy: 0.6678
Epoch 72/75
77/77 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 73/75
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 74/75
77/77 [=====] - 0s 1ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 75/75
77/77 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6678
20/20 [=====] - 0s 1ms/step - loss: 0.6939 - accuracy: 0.5844
Epoch 1/75
77/77 [=====] - 0s 1ms/step - loss: 5.2047 - accuracy: 0.6189
Epoch 2/75
77/77 [=====] - 0s 2ms/step - loss: 1.4644 - accuracy: 0.6531
Epoch 3/75
77/77 [=====] - 0s 1ms/step - loss: 0.8297 - accuracy: 0.6564
Epoch 4/75
77/77 [=====] - 0s 2ms/step - loss: 0.6986 - accuracy: 0.6547
Epoch 5/75
77/77 [=====] - 0s 1ms/step - loss: 0.6700 - accuracy: 0.6564
Epoch 6/75
77/77 [=====] - 0s 1ms/step - loss: 0.6594 - accuracy: 0.6547
Epoch 7/75
77/77 [=====] - 0s 2ms/step - loss: 0.6579 - accuracy: 0.6564
Epoch 8/75
77/77 [=====] - 0s 1ms/step - loss: 0.6526 - accuracy: 0.6564
Epoch 9/75
77/77 [=====] - 0s 2ms/step - loss: 0.6508 - accuracy: 0.6564
Epoch 10/75
77/77 [=====] - 0s 1ms/step - loss: 0.6497 - accuracy: 0.6564
Epoch 11/75
77/77 [=====] - 0s 1ms/step - loss: 0.6475 - accuracy: 0.6564
```


Epoch 12/75
77/77 [=====] - 0s 2ms/step - loss: 0.6438 - accuracy: 0.6547
Epoch 13/75
77/77 [=====] - 0s 2ms/step - loss: 0.6400 - accuracy: 0.6694
Epoch 14/75
77/77 [=====] - 0s 3ms/step - loss: 0.6458 - accuracy: 0.6531
Epoch 15/75
77/77 [=====] - 0s 1ms/step - loss: 0.6424 - accuracy: 0.6564
Epoch 16/75
77/77 [=====] - 0s 2ms/step - loss: 0.6437 - accuracy: 0.6564
Epoch 17/75
77/77 [=====] - 0s 1ms/step - loss: 0.6387 - accuracy: 0.6661
Epoch 18/75
77/77 [=====] - 0s 1ms/step - loss: 0.6413 - accuracy: 0.6498
Epoch 19/75
77/77 [=====] - 0s 2ms/step - loss: 0.6398 - accuracy: 0.6596
Epoch 20/75
77/77 [=====] - 0s 1ms/step - loss: 0.6394 - accuracy: 0.6531
Epoch 21/75
77/77 [=====] - 0s 1ms/step - loss: 0.6336 - accuracy: 0.6629
Epoch 22/75
77/77 [=====] - 0s 2ms/step - loss: 0.6421 - accuracy: 0.6580
Epoch 23/75
77/77 [=====] - 0s 1ms/step - loss: 0.6453 - accuracy: 0.6580
Epoch 24/75
77/77 [=====] - 0s 3ms/step - loss: 0.6362 - accuracy: 0.6580
Epoch 25/75
77/77 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6531
Epoch 26/75
77/77 [=====] - 0s 2ms/step - loss: 0.6399 - accuracy: 0.6450
Epoch 27/75
77/77 [=====] - 0s 1ms/step - loss: 0.6339 - accuracy: 0.6596
Epoch 28/75
77/77 [=====] - 0s 1ms/step - loss: 0.6261 - accuracy: 0.6792
Epoch 29/75
77/77 [=====] - 0s 2ms/step - loss: 0.6386 - accuracy: 0.6498
Epoch 30/75
77/77 [=====] - 0s 1ms/step - loss: 0.6371 - accuracy: 0.6710
Epoch 31/75
77/77 [=====] - 0s 2ms/step - loss: 0.6336 - accuracy: 0.6678
Epoch 32/75
77/77 [=====] - 0s 2ms/step - loss: 0.6362 - accuracy: 0.6580
Epoch 33/75
77/77 [=====] - 0s 1ms/step - loss: 0.6319 - accuracy: 0.6564
Epoch 34/75
77/77 [=====] - 0s 2ms/step - loss: 0.6391 - accuracy: 0.6645
Epoch 35/75
77/77 [=====] - 0s 1ms/step - loss: 0.6303 - accuracy: 0.6629
Epoch 36/75
77/77 [=====] - 0s 1ms/step - loss: 0.6371 - accuracy: 0.6596
Epoch 37/75
77/77 [=====] - 0s 2ms/step - loss: 0.6408 - accuracy: 0.6515
Epoch 38/75
77/77 [=====] - 0s 2ms/step - loss: 0.6367 - accuracy: 0.6759
Epoch 39/75
77/77 [=====] - 0s 2ms/step - loss: 0.6339 - accuracy: 0.6580
Epoch 40/75
77/77 [=====] - 0s 1ms/step - loss: 0.6398 - accuracy: 0.6661
Epoch 41/75
77/77 [=====] - 0s 1ms/step - loss: 0.6315 - accuracy: 0.6580
Epoch 42/75
77/77 [=====] - 0s 2ms/step - loss: 0.6413 - accuracy: 0.6661
Epoch 43/75
77/77 [=====] - 0s 1ms/step - loss: 0.6349 - accuracy: 0.6498
Epoch 44/75
77/77 [=====] - 0s 1ms/step - loss: 0.6401 - accuracy: 0.6629
Epoch 45/75
77/77 [=====] - 0s 2ms/step - loss: 0.6321 - accuracy: 0.6596
Epoch 46/75
77/77 [=====] - 0s 1ms/step - loss: 0.6368 - accuracy: 0.6645
Epoch 47/75
77/77 [=====] - 0s 2ms/step - loss: 0.6317 - accuracy: 0.6629
Epoch 48/75
77/77 [=====] - 0s 1ms/step - loss: 0.6275 - accuracy: 0.6596
Epoch 49/75
77/77 [=====] - 0s 2ms/step - loss: 0.6351 - accuracy: 0.6661
Epoch 50/75
77/77 [=====] - 0s 2ms/step - loss: 0.6378 - accuracy: 0.6596
Epoch 51/75
77/77 [=====] - 0s 1ms/step - loss: 0.6334 - accuracy: 0.6759
Epoch 52/75
77/77 [=====] - 0s 2ms/step - loss: 0.6327 - accuracy: 0.6743

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Epoch 53/75
77/77 [=====] - 0s 1ms/step - loss: 0.6315 - accuracy: 0.6580
Epoch 54/75
77/77 [=====] - 0s 1ms/step - loss: 0.6432 - accuracy: 0.6547
Epoch 55/75
77/77 [=====] - 0s 2ms/step - loss: 0.6370 - accuracy: 0.6547
Epoch 56/75
77/77 [=====] - 0s 2ms/step - loss: 0.6323 - accuracy: 0.6580
Epoch 57/75
77/77 [=====] - 0s 2ms/step - loss: 0.6337 - accuracy: 0.6726
Epoch 58/75
77/77 [=====] - 0s 1ms/step - loss: 0.6324 - accuracy: 0.6661
Epoch 59/75
77/77 [=====] - 0s 2ms/step - loss: 0.6362 - accuracy: 0.6678
Epoch 60/75
77/77 [=====] - 0s 1ms/step - loss: 0.6343 - accuracy: 0.6726
Epoch 61/75
77/77 [=====] - 0s 1ms/step - loss: 0.6313 - accuracy: 0.6840
Epoch 62/75
77/77 [=====] - 0s 2ms/step - loss: 0.6275 - accuracy: 0.6596
Epoch 63/75
77/77 [=====] - 0s 1ms/step - loss: 0.6402 - accuracy: 0.6547
Epoch 64/75
77/77 [=====] - 0s 1ms/step - loss: 0.6298 - accuracy: 0.6531
Epoch 65/75
77/77 [=====] - 0s 2ms/step - loss: 0.6378 - accuracy: 0.6661
Epoch 66/75
77/77 [=====] - 0s 2ms/step - loss: 0.6468 - accuracy: 0.6612
Epoch 67/75
77/77 [=====] - 0s 2ms/step - loss: 0.6258 - accuracy: 0.6743
Epoch 68/75
77/77 [=====] - 0s 2ms/step - loss: 0.6350 - accuracy: 0.6678
Epoch 69/75
77/77 [=====] - 0s 2ms/step - loss: 0.6370 - accuracy: 0.6661
Epoch 70/75
77/77 [=====] - 0s 1ms/step - loss: 0.6400 - accuracy: 0.6645
Epoch 71/75
77/77 [=====] - 0s 1ms/step - loss: 0.6386 - accuracy: 0.6726
Epoch 72/75
77/77 [=====] - 0s 2ms/step - loss: 0.6351 - accuracy: 0.6726
Epoch 73/75
77/77 [=====] - 0s 1ms/step - loss: 0.6366 - accuracy: 0.6580
Epoch 74/75
77/77 [=====] - 0s 2ms/step - loss: 0.6345 - accuracy: 0.6759
Epoch 75/75
77/77 [=====] - 0s 1ms/step - loss: 0.6432 - accuracy: 0.6645
20/20 [=====] - 0s 1ms/step - loss: 0.6362 - accuracy: 0.6494
Epoch 1/75
77/77 [=====] - 0s 1ms/step - loss: 4.7586 - accuracy: 0.6033
Epoch 2/75
77/77 [=====] - 0s 2ms/step - loss: 1.4907 - accuracy: 0.6276
Epoch 3/75
77/77 [=====] - 0s 2ms/step - loss: 0.8542 - accuracy: 0.6276
Epoch 4/75
77/77 [=====] - 0s 2ms/step - loss: 0.7161 - accuracy: 0.6276
Epoch 5/75
77/77 [=====] - 0s 2ms/step - loss: 0.6827 - accuracy: 0.6276
Epoch 6/75
77/77 [=====] - 0s 2ms/step - loss: 0.6734 - accuracy: 0.6276
Epoch 7/75
77/77 [=====] - 0s 1ms/step - loss: 0.6690 - accuracy: 0.6276
Epoch 8/75
77/77 [=====] - 0s 1ms/step - loss: 0.6666 - accuracy: 0.6276
Epoch 9/75
77/77 [=====] - 0s 2ms/step - loss: 0.6645 - accuracy: 0.6276
Epoch 10/75
77/77 [=====] - 0s 1ms/step - loss: 0.6630 - accuracy: 0.6276
Epoch 11/75
77/77 [=====] - 0s 2ms/step - loss: 0.6621 - accuracy: 0.6276
Epoch 12/75
77/77 [=====] - 0s 1ms/step - loss: 0.6610 - accuracy: 0.6276
Epoch 13/75
77/77 [=====] - 0s 1ms/step - loss: 0.6614 - accuracy: 0.6276
Epoch 14/75
77/77 [=====] - 0s 2ms/step - loss: 0.6607 - accuracy: 0.6276
Epoch 15/75
77/77 [=====] - 0s 1ms/step - loss: 0.6590 - accuracy: 0.6293
Epoch 16/75
77/77 [=====] - 0s 2ms/step - loss: 0.6573 - accuracy: 0.6407
Epoch 17/75
77/77 [=====] - 0s 2ms/step - loss: 0.6584 - accuracy: 0.6293
Epoch 18/75
```

77/77 [=====] - 0s 2ms/step - loss: 0.6616 - accuracy: 0.6276
Epoch 19/75
77/77 [=====] - 0s 1ms/step - loss: 0.6558 - accuracy: 0.6358
Epoch 20/75
77/77 [=====] - 0s 2ms/step - loss: 0.6569 - accuracy: 0.6309
Epoch 21/75
77/77 [=====] - 0s 2ms/step - loss: 0.6575 - accuracy: 0.6341
Epoch 22/75
77/77 [=====] - 0s 1ms/step - loss: 0.6564 - accuracy: 0.6341
Epoch 23/75
77/77 [=====] - 0s 1ms/step - loss: 0.6578 - accuracy: 0.6390
Epoch 24/75
77/77 [=====] - 0s 2ms/step - loss: 0.6594 - accuracy: 0.6341
Epoch 25/75
77/77 [=====] - 0s 1ms/step - loss: 0.6519 - accuracy: 0.6504
Epoch 26/75
77/77 [=====] - 0s 1ms/step - loss: 0.6558 - accuracy: 0.6293
Epoch 27/75
77/77 [=====] - 0s 2ms/step - loss: 0.6531 - accuracy: 0.6504
Epoch 28/75
77/77 [=====] - 0s 1ms/step - loss: 0.6566 - accuracy: 0.6407
Epoch 29/75
77/77 [=====] - 0s 1ms/step - loss: 0.6522 - accuracy: 0.6390
Epoch 30/75
77/77 [=====] - 0s 2ms/step - loss: 0.6588 - accuracy: 0.6228
Epoch 31/75
77/77 [=====] - 0s 1ms/step - loss: 0.6463 - accuracy: 0.6488
Epoch 32/75
77/77 [=====] - 0s 2ms/step - loss: 0.6500 - accuracy: 0.6374
Epoch 33/75
77/77 [=====] - 0s 2ms/step - loss: 0.6537 - accuracy: 0.6553
Epoch 34/75
77/77 [=====] - 0s 2ms/step - loss: 0.6571 - accuracy: 0.6488
Epoch 35/75
77/77 [=====] - 0s 1ms/step - loss: 0.6511 - accuracy: 0.6341
Epoch 36/75
77/77 [=====] - 0s 1ms/step - loss: 0.6524 - accuracy: 0.6374
Epoch 37/75
77/77 [=====] - 0s 2ms/step - loss: 0.6569 - accuracy: 0.6325
Epoch 38/75
77/77 [=====] - 0s 1ms/step - loss: 0.6540 - accuracy: 0.6455
Epoch 39/75
77/77 [=====] - 0s 2ms/step - loss: 0.6633 - accuracy: 0.6325
Epoch 40/75
77/77 [=====] - 0s 2ms/step - loss: 0.6469 - accuracy: 0.6520
Epoch 41/75
77/77 [=====] - 0s 2ms/step - loss: 0.6518 - accuracy: 0.6423
Epoch 42/75
77/77 [=====] - 0s 1ms/step - loss: 0.6551 - accuracy: 0.6341
Epoch 43/75
77/77 [=====] - 0s 1ms/step - loss: 0.6472 - accuracy: 0.6488
Epoch 44/75
77/77 [=====] - 0s 2ms/step - loss: 0.6526 - accuracy: 0.6293
Epoch 45/75
77/77 [=====] - 0s 1ms/step - loss: 0.6528 - accuracy: 0.6602
Epoch 46/75
77/77 [=====] - 0s 2ms/step - loss: 0.6616 - accuracy: 0.6228
Epoch 47/75
77/77 [=====] - 0s 2ms/step - loss: 0.6566 - accuracy: 0.6407
Epoch 48/75
77/77 [=====] - 0s 2ms/step - loss: 0.6519 - accuracy: 0.6472
Epoch 49/75
77/77 [=====] - 0s 1ms/step - loss: 0.6512 - accuracy: 0.6488
Epoch 50/75
77/77 [=====] - 0s 2ms/step - loss: 0.6588 - accuracy: 0.6455
Epoch 51/75
77/77 [=====] - 0s 2ms/step - loss: 0.6508 - accuracy: 0.6537
Epoch 52/75
77/77 [=====] - 0s 1ms/step - loss: 0.6480 - accuracy: 0.6423
Epoch 53/75
77/77 [=====] - 0s 2ms/step - loss: 0.6450 - accuracy: 0.6537
Epoch 54/75
77/77 [=====] - 0s 1ms/step - loss: 0.6528 - accuracy: 0.6374
Epoch 55/75
77/77 [=====] - 0s 2ms/step - loss: 0.6510 - accuracy: 0.6423
Epoch 56/75
77/77 [=====] - 0s 2ms/step - loss: 0.6581 - accuracy: 0.6358
Epoch 57/75
77/77 [=====] - 0s 1ms/step - loss: 0.6532 - accuracy: 0.6325
Epoch 58/75
77/77 [=====] - 0s 2ms/step - loss: 0.6545 - accuracy: 0.6520
Epoch 59/75

77/77 [=====] - 0s 2ms/step - loss: 0.6499 - accuracy: 0.6569
Epoch 60/75
77/77 [=====] - 0s 2ms/step - loss: 0.6429 - accuracy: 0.6602
Epoch 61/75
77/77 [=====] - 0s 2ms/step - loss: 0.6546 - accuracy: 0.6423
Epoch 62/75
77/77 [=====] - 0s 2ms/step - loss: 0.6537 - accuracy: 0.6537
Epoch 63/75
77/77 [=====] - 0s 2ms/step - loss: 0.6474 - accuracy: 0.6618
Epoch 64/75
77/77 [=====] - 0s 2ms/step - loss: 0.6501 - accuracy: 0.6341
Epoch 65/75
77/77 [=====] - 0s 2ms/step - loss: 0.6581 - accuracy: 0.6455
Epoch 66/75
77/77 [=====] - 0s 2ms/step - loss: 0.6432 - accuracy: 0.6520
Epoch 67/75
77/77 [=====] - 0s 1ms/step - loss: 0.6447 - accuracy: 0.6423
Epoch 68/75
77/77 [=====] - 0s 2ms/step - loss: 0.6396 - accuracy: 0.6618
Epoch 69/75
77/77 [=====] - 0s 1ms/step - loss: 0.6502 - accuracy: 0.6537
Epoch 70/75
77/77 [=====] - 0s 1ms/step - loss: 0.6412 - accuracy: 0.6667
Epoch 71/75
77/77 [=====] - 0s 2ms/step - loss: 0.6631 - accuracy: 0.6407
Epoch 72/75
77/77 [=====] - 0s 1ms/step - loss: 0.6469 - accuracy: 0.6585
Epoch 73/75
77/77 [=====] - 0s 2ms/step - loss: 0.6534 - accuracy: 0.6358
Epoch 74/75
77/77 [=====] - 0s 2ms/step - loss: 0.6443 - accuracy: 0.6553
Epoch 75/75
77/77 [=====] - 0s 2ms/step - loss: 0.6437 - accuracy: 0.6602
20/20 [=====] - 0s 1ms/step - loss: 0.6071 - accuracy: 0.7778
Epoch 1/75
77/77 [=====] - 0s 1ms/step - loss: 5.0006 - accuracy: 0.6358
Epoch 2/75
77/77 [=====] - 0s 2ms/step - loss: 1.4789 - accuracy: 0.6553
Epoch 3/75
77/77 [=====] - 0s 1ms/step - loss: 0.8405 - accuracy: 0.6585
Epoch 4/75
77/77 [=====] - 0s 2ms/step - loss: 0.7040 - accuracy: 0.6537
Epoch 5/75
77/77 [=====] - 0s 2ms/step - loss: 0.6709 - accuracy: 0.6602
Epoch 6/75
77/77 [=====] - 0s 2ms/step - loss: 0.6628 - accuracy: 0.6537
Epoch 7/75
77/77 [=====] - 0s 1ms/step - loss: 0.6572 - accuracy: 0.6520
Epoch 8/75
77/77 [=====] - 0s 1ms/step - loss: 0.6543 - accuracy: 0.6520
Epoch 9/75
77/77 [=====] - 0s 2ms/step - loss: 0.6523 - accuracy: 0.6520
Epoch 10/75
77/77 [=====] - 0s 1ms/step - loss: 0.6506 - accuracy: 0.6520
Epoch 11/75
77/77 [=====] - 0s 2ms/step - loss: 0.6490 - accuracy: 0.6520
Epoch 12/75
77/77 [=====] - 0s 1ms/step - loss: 0.6482 - accuracy: 0.6520
Epoch 13/75
77/77 [=====] - 0s 2ms/step - loss: 0.6473 - accuracy: 0.6520
Epoch 14/75
77/77 [=====] - 0s 1ms/step - loss: 0.6466 - accuracy: 0.6520
Epoch 15/75
77/77 [=====] - 0s 1ms/step - loss: 0.6465 - accuracy: 0.6520
Epoch 16/75
77/77 [=====] - 0s 3ms/step - loss: 0.6462 - accuracy: 0.6520
Epoch 17/75
77/77 [=====] - 0s 2ms/step - loss: 0.6460 - accuracy: 0.6520
Epoch 18/75
77/77 [=====] - 0s 2ms/step - loss: 0.6456 - accuracy: 0.6520
Epoch 19/75
77/77 [=====] - 0s 1ms/step - loss: 0.6455 - accuracy: 0.6520
Epoch 20/75
77/77 [=====] - 0s 2ms/step - loss: 0.6455 - accuracy: 0.6520
Epoch 21/75
77/77 [=====] - 0s 1ms/step - loss: 0.6453 - accuracy: 0.6520
Epoch 22/75
77/77 [=====] - 0s 2ms/step - loss: 0.6452 - accuracy: 0.6520
Epoch 23/75
77/77 [=====] - 0s 1ms/step - loss: 0.6452 - accuracy: 0.6520
Epoch 24/75
77/77 [=====] - 0s 1ms/step - loss: 0.6448 - accuracy: 0.6520

Epoch 25/75
77/77 [=====] - 0s 3ms/step - loss: 0.6449 - accuracy: 0.6520
Epoch 26/75
77/77 [=====] - 0s 2ms/step - loss: 0.6446 - accuracy: 0.6520
Epoch 27/75
77/77 [=====] - 0s 2ms/step - loss: 0.6447 - accuracy: 0.6520
Epoch 28/75
77/77 [=====] - 0s 1ms/step - loss: 0.6442 - accuracy: 0.6520
Epoch 29/75
77/77 [=====] - 0s 2ms/step - loss: 0.6440 - accuracy: 0.6520
Epoch 30/75
77/77 [=====] - 0s 2ms/step - loss: 0.6439 - accuracy: 0.6520
Epoch 31/75
77/77 [=====] - 0s 2ms/step - loss: 0.6440 - accuracy: 0.6520
Epoch 32/75
77/77 [=====] - 0s 1ms/step - loss: 0.6435 - accuracy: 0.6520
Epoch 33/75
77/77 [=====] - 0s 1ms/step - loss: 0.6436 - accuracy: 0.6520
Epoch 34/75
77/77 [=====] - 0s 2ms/step - loss: 0.6428 - accuracy: 0.6520
Epoch 35/75
77/77 [=====] - 0s 2ms/step - loss: 0.6429 - accuracy: 0.6520
Epoch 36/75
77/77 [=====] - 0s 2ms/step - loss: 0.6417 - accuracy: 0.6537
Epoch 37/75
77/77 [=====] - 0s 1ms/step - loss: 0.6409 - accuracy: 0.6504
Epoch 38/75
77/77 [=====] - 0s 2ms/step - loss: 0.6404 - accuracy: 0.6537
Epoch 39/75
77/77 [=====] - 0s 2ms/step - loss: 0.6391 - accuracy: 0.6569
Epoch 40/75
77/77 [=====] - 0s 2ms/step - loss: 0.6413 - accuracy: 0.6585
Epoch 41/75
77/77 [=====] - 0s 1ms/step - loss: 0.6368 - accuracy: 0.6585
Epoch 42/75
77/77 [=====] - 0s 3ms/step - loss: 0.6380 - accuracy: 0.6520
Epoch 43/75
77/77 [=====] - 0s 2ms/step - loss: 0.6401 - accuracy: 0.6569
Epoch 44/75
77/77 [=====] - 0s 2ms/step - loss: 0.6373 - accuracy: 0.6618
Epoch 45/75
77/77 [=====] - 0s 1ms/step - loss: 0.6393 - accuracy: 0.6585
Epoch 46/75
77/77 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6667
Epoch 47/75
77/77 [=====] - 0s 1ms/step - loss: 0.6368 - accuracy: 0.6537
Epoch 48/75
77/77 [=====] - 0s 2ms/step - loss: 0.6311 - accuracy: 0.6602
Epoch 49/75
77/77 [=====] - 0s 1ms/step - loss: 0.6397 - accuracy: 0.6569
Epoch 50/75
77/77 [=====] - 0s 2ms/step - loss: 0.6396 - accuracy: 0.6569
Epoch 51/75
77/77 [=====] - 0s 1ms/step - loss: 0.6312 - accuracy: 0.6748
Epoch 52/75
77/77 [=====] - 0s 2ms/step - loss: 0.6335 - accuracy: 0.6748
Epoch 53/75
77/77 [=====] - 0s 2ms/step - loss: 0.6378 - accuracy: 0.6553
Epoch 54/75
77/77 [=====] - 0s 2ms/step - loss: 0.6296 - accuracy: 0.6715
Epoch 55/75
77/77 [=====] - 0s 2ms/step - loss: 0.6321 - accuracy: 0.6715
Epoch 56/75
77/77 [=====] - 0s 2ms/step - loss: 0.6328 - accuracy: 0.6667
Epoch 57/75
77/77 [=====] - 0s 2ms/step - loss: 0.6370 - accuracy: 0.6667
Epoch 58/75
77/77 [=====] - 0s 1ms/step - loss: 0.6400 - accuracy: 0.6553
Epoch 59/75
77/77 [=====] - 0s 2ms/step - loss: 0.6342 - accuracy: 0.6472
Epoch 60/75
77/77 [=====] - 0s 2ms/step - loss: 0.6380 - accuracy: 0.6520
Epoch 61/75
77/77 [=====] - 0s 2ms/step - loss: 0.6302 - accuracy: 0.6602
Epoch 62/75
77/77 [=====] - 0s 1ms/step - loss: 0.6371 - accuracy: 0.6699
Epoch 63/75
77/77 [=====] - 0s 2ms/step - loss: 0.6287 - accuracy: 0.6683
Epoch 64/75
77/77 [=====] - 0s 1ms/step - loss: 0.6292 - accuracy: 0.6699
Epoch 65/75
77/77 [=====] - 0s 2ms/step - loss: 0.6334 - accuracy: 0.6797

Epoch 66/75
77/77 [=====] - 0s 1ms/step - loss: 0.6328 - accuracy: 0.6715
Epoch 67/75
77/77 [=====] - 0s 2ms/step - loss: 0.6319 - accuracy: 0.6748
Epoch 68/75
77/77 [=====] - 0s 1ms/step - loss: 0.6366 - accuracy: 0.6618
Epoch 69/75
77/77 [=====] - 0s 2ms/step - loss: 0.6274 - accuracy: 0.6667
Epoch 70/75
77/77 [=====] - 0s 2ms/step - loss: 0.6406 - accuracy: 0.6699
Epoch 71/75
77/77 [=====] - 0s 1ms/step - loss: 0.6315 - accuracy: 0.6748
Epoch 72/75
77/77 [=====] - 0s 2ms/step - loss: 0.6269 - accuracy: 0.6764
Epoch 73/75
77/77 [=====] - 0s 1ms/step - loss: 0.6386 - accuracy: 0.6618
Epoch 74/75
77/77 [=====] - 0s 2ms/step - loss: 0.6308 - accuracy: 0.6667
Epoch 75/75
77/77 [=====] - 0s 1ms/step - loss: 0.6293 - accuracy: 0.6667
20/20 [=====] - 0s 1ms/step - loss: 0.6461 - accuracy: 0.6536
Epoch 1/75
77/77 [=====] - 0s 1ms/step - loss: 2.7422 - accuracy: 0.6026
Epoch 2/75
77/77 [=====] - 0s 1ms/step - loss: 1.7215 - accuracy: 0.6466
Epoch 3/75
77/77 [=====] - 0s 2ms/step - loss: 1.4028 - accuracy: 0.6515
Epoch 4/75
77/77 [=====] - 0s 1ms/step - loss: 1.2041 - accuracy: 0.6515
Epoch 5/75
77/77 [=====] - 0s 2ms/step - loss: 1.0448 - accuracy: 0.6515
Epoch 6/75
77/77 [=====] - 0s 1ms/step - loss: 0.9279 - accuracy: 0.6515
Epoch 7/75
77/77 [=====] - 0s 2ms/step - loss: 0.8539 - accuracy: 0.6515
Epoch 8/75
77/77 [=====] - 0s 1ms/step - loss: 0.8065 - accuracy: 0.6515
Epoch 9/75
77/77 [=====] - 0s 1ms/step - loss: 0.7584 - accuracy: 0.6515
Epoch 10/75
77/77 [=====] - 0s 2ms/step - loss: 0.7309 - accuracy: 0.6515
Epoch 11/75
77/77 [=====] - 0s 2ms/step - loss: 0.7076 - accuracy: 0.6515
Epoch 12/75
77/77 [=====] - 0s 3ms/step - loss: 0.6944 - accuracy: 0.6515
Epoch 13/75
77/77 [=====] - 0s 1ms/step - loss: 0.6798 - accuracy: 0.6515
Epoch 14/75
77/77 [=====] - 0s 2ms/step - loss: 0.6680 - accuracy: 0.6515
Epoch 15/75
77/77 [=====] - 0s 1ms/step - loss: 0.6684 - accuracy: 0.6515
Epoch 16/75
77/77 [=====] - 0s 2ms/step - loss: 0.6562 - accuracy: 0.6515
Epoch 17/75
77/77 [=====] - 0s 1ms/step - loss: 0.6578 - accuracy: 0.6515
Epoch 18/75
77/77 [=====] - 0s 2ms/step - loss: 0.6535 - accuracy: 0.6515
Epoch 19/75
77/77 [=====] - 0s 1ms/step - loss: 0.6503 - accuracy: 0.6515
Epoch 20/75
77/77 [=====] - 0s 2ms/step - loss: 0.6490 - accuracy: 0.6515
Epoch 21/75
77/77 [=====] - 0s 2ms/step - loss: 0.6485 - accuracy: 0.6515
Epoch 22/75
77/77 [=====] - 0s 2ms/step - loss: 0.6456 - accuracy: 0.6515
Epoch 23/75
77/77 [=====] - 0s 2ms/step - loss: 0.6422 - accuracy: 0.6515
Epoch 24/75
77/77 [=====] - 0s 2ms/step - loss: 0.6507 - accuracy: 0.6515
Epoch 25/75
77/77 [=====] - 0s 1ms/step - loss: 0.6487 - accuracy: 0.6515
Epoch 26/75
77/77 [=====] - 0s 2ms/step - loss: 0.6451 - accuracy: 0.6515
Epoch 27/75
77/77 [=====] - 0s 1ms/step - loss: 0.6504 - accuracy: 0.6515
Epoch 28/75
77/77 [=====] - 0s 2ms/step - loss: 0.6419 - accuracy: 0.6515
Epoch 29/75
77/77 [=====] - 0s 1ms/step - loss: 0.6489 - accuracy: 0.6515
Epoch 30/75
77/77 [=====] - 0s 2ms/step - loss: 0.6453 - accuracy: 0.6515
Epoch 31/75

77/77 [=====] - 0s 1ms/step - loss: 0.6422 - accuracy: 0.6515
Epoch 32/75
77/77 [=====] - 0s 2ms/step - loss: 0.6469 - accuracy: 0.6515
Epoch 33/75
77/77 [=====] - 0s 1ms/step - loss: 0.6498 - accuracy: 0.6515
Epoch 34/75
77/77 [=====] - 0s 2ms/step - loss: 0.6349 - accuracy: 0.6515
Epoch 35/75
77/77 [=====] - 0s 1ms/step - loss: 0.6455 - accuracy: 0.6515
Epoch 36/75
77/77 [=====] - 0s 3ms/step - loss: 0.6400 - accuracy: 0.6515
Epoch 37/75
77/77 [=====] - 0s 1ms/step - loss: 0.6425 - accuracy: 0.6515
Epoch 38/75
77/77 [=====] - 0s 2ms/step - loss: 0.6396 - accuracy: 0.6515
Epoch 39/75
77/77 [=====] - 0s 1ms/step - loss: 0.6425 - accuracy: 0.6515
Epoch 40/75
77/77 [=====] - 0s 2ms/step - loss: 0.6372 - accuracy: 0.6515
Epoch 41/75
77/77 [=====] - 0s 1ms/step - loss: 0.6409 - accuracy: 0.6515
Epoch 42/75
77/77 [=====] - 0s 2ms/step - loss: 0.6421 - accuracy: 0.6515
Epoch 43/75
77/77 [=====] - 0s 2ms/step - loss: 0.6399 - accuracy: 0.6515
Epoch 44/75
77/77 [=====] - 0s 2ms/step - loss: 0.6426 - accuracy: 0.6515
Epoch 45/75
77/77 [=====] - 0s 1ms/step - loss: 0.6392 - accuracy: 0.6515
Epoch 46/75
77/77 [=====] - 0s 2ms/step - loss: 0.6423 - accuracy: 0.6515
Epoch 47/75
77/77 [=====] - 0s 1ms/step - loss: 0.6361 - accuracy: 0.6515
Epoch 48/75
77/77 [=====] - 0s 2ms/step - loss: 0.6393 - accuracy: 0.6515
Epoch 49/75
77/77 [=====] - 0s 1ms/step - loss: 0.6407 - accuracy: 0.6515
Epoch 50/75
77/77 [=====] - 0s 2ms/step - loss: 0.6407 - accuracy: 0.6515
Epoch 51/75
77/77 [=====] - 0s 1ms/step - loss: 0.6425 - accuracy: 0.6515
Epoch 52/75
77/77 [=====] - 0s 2ms/step - loss: 0.6396 - accuracy: 0.6515
Epoch 53/75
77/77 [=====] - 0s 2ms/step - loss: 0.6399 - accuracy: 0.6515
Epoch 54/75
77/77 [=====] - 0s 3ms/step - loss: 0.6403 - accuracy: 0.6515
Epoch 55/75
77/77 [=====] - 0s 1ms/step - loss: 0.6350 - accuracy: 0.6515
Epoch 56/75
77/77 [=====] - 0s 2ms/step - loss: 0.6376 - accuracy: 0.6515
Epoch 57/75
77/77 [=====] - 0s 1ms/step - loss: 0.6381 - accuracy: 0.6515
Epoch 58/75
77/77 [=====] - 0s 2ms/step - loss: 0.6327 - accuracy: 0.6515
Epoch 59/75
77/77 [=====] - 0s 2ms/step - loss: 0.6339 - accuracy: 0.6515
Epoch 60/75
77/77 [=====] - 0s 2ms/step - loss: 0.6308 - accuracy: 0.6515
Epoch 61/75
77/77 [=====] - 0s 1ms/step - loss: 0.6399 - accuracy: 0.6515
Epoch 62/75
77/77 [=====] - 0s 2ms/step - loss: 0.6313 - accuracy: 0.6515
Epoch 63/75
77/77 [=====] - 0s 2ms/step - loss: 0.6378 - accuracy: 0.6515
Epoch 64/75
77/77 [=====] - 0s 2ms/step - loss: 0.6270 - accuracy: 0.6531
Epoch 65/75
77/77 [=====] - 0s 2ms/step - loss: 0.6311 - accuracy: 0.6531
Epoch 66/75
77/77 [=====] - 0s 2ms/step - loss: 0.6292 - accuracy: 0.6889
Epoch 67/75
77/77 [=====] - 0s 2ms/step - loss: 0.6285 - accuracy: 0.6775
Epoch 68/75
77/77 [=====] - 0s 2ms/step - loss: 0.6289 - accuracy: 0.6808
Epoch 69/75
77/77 [=====] - 0s 1ms/step - loss: 0.6319 - accuracy: 0.6808
Epoch 70/75
77/77 [=====] - 0s 2ms/step - loss: 0.6236 - accuracy: 0.6857
Epoch 71/75
77/77 [=====] - 0s 1ms/step - loss: 0.6262 - accuracy: 0.6775
Epoch 72/75

77/77 [=====] - 0s 2ms/step - loss: 0.6228 - accuracy: 0.6906
Epoch 73/75
77/77 [=====] - 0s 1ms/step - loss: 0.6265 - accuracy: 0.6840
Epoch 74/75
77/77 [=====] - 0s 2ms/step - loss: 0.6203 - accuracy: 0.6792
Epoch 75/75
77/77 [=====] - 0s 2ms/step - loss: 0.6214 - accuracy: 0.6710
20/20 [=====] - 0s 2ms/step - loss: 0.6174 - accuracy: 0.6494
Epoch 1/75
77/77 [=====] - 1s 2ms/step - loss: 2.3268 - accuracy: 0.6254
Epoch 2/75
77/77 [=====] - 0s 2ms/step - loss: 1.6570 - accuracy: 0.6661
Epoch 3/75
77/77 [=====] - 0s 2ms/step - loss: 1.3967 - accuracy: 0.6694
Epoch 4/75
77/77 [=====] - 0s 2ms/step - loss: 1.1935 - accuracy: 0.6775
Epoch 5/75
77/77 [=====] - 0s 3ms/step - loss: 1.0477 - accuracy: 0.6726
Epoch 6/75
77/77 [=====] - 0s 2ms/step - loss: 0.9421 - accuracy: 0.6743
Epoch 7/75
77/77 [=====] - 0s 2ms/step - loss: 0.8610 - accuracy: 0.6629
Epoch 8/75
77/77 [=====] - 0s 1ms/step - loss: 0.8017 - accuracy: 0.6694
Epoch 9/75
77/77 [=====] - 0s 2ms/step - loss: 0.7478 - accuracy: 0.6743
Epoch 10/75
77/77 [=====] - 0s 2ms/step - loss: 0.7159 - accuracy: 0.6726
Epoch 11/75
77/77 [=====] - 0s 3ms/step - loss: 0.7008 - accuracy: 0.6743
Epoch 12/75
77/77 [=====] - 0s 3ms/step - loss: 0.6852 - accuracy: 0.6710
Epoch 13/75
77/77 [=====] - 0s 2ms/step - loss: 0.6680 - accuracy: 0.6792
Epoch 14/75
77/77 [=====] - 0s 3ms/step - loss: 0.6565 - accuracy: 0.6710
Epoch 15/75
77/77 [=====] - 0s 2ms/step - loss: 0.6561 - accuracy: 0.6694
Epoch 16/75
77/77 [=====] - 0s 2ms/step - loss: 0.6463 - accuracy: 0.6873
Epoch 17/75
77/77 [=====] - 0s 2ms/step - loss: 0.6361 - accuracy: 0.6987
Epoch 18/75
77/77 [=====] - 0s 2ms/step - loss: 0.6339 - accuracy: 0.6840
Epoch 19/75
77/77 [=====] - 0s 2ms/step - loss: 0.6296 - accuracy: 0.6922
Epoch 20/75
77/77 [=====] - 0s 2ms/step - loss: 0.6283 - accuracy: 0.6889
Epoch 21/75
77/77 [=====] - 0s 2ms/step - loss: 0.6310 - accuracy: 0.6808
Epoch 22/75
77/77 [=====] - 0s 2ms/step - loss: 0.6265 - accuracy: 0.6922
Epoch 23/75
77/77 [=====] - 0s 2ms/step - loss: 0.6255 - accuracy: 0.6840
Epoch 24/75
77/77 [=====] - 0s 3ms/step - loss: 0.6309 - accuracy: 0.6840
Epoch 25/75
77/77 [=====] - 0s 2ms/step - loss: 0.6257 - accuracy: 0.6824
Epoch 26/75
77/77 [=====] - 0s 3ms/step - loss: 0.6242 - accuracy: 0.6906
Epoch 27/75
77/77 [=====] - 0s 2ms/step - loss: 0.6186 - accuracy: 0.7020
Epoch 28/75
77/77 [=====] - 0s 2ms/step - loss: 0.6296 - accuracy: 0.6906
Epoch 29/75
77/77 [=====] - 0s 2ms/step - loss: 0.6211 - accuracy: 0.6694
Epoch 30/75
77/77 [=====] - 0s 2ms/step - loss: 0.6214 - accuracy: 0.6808
Epoch 31/75
77/77 [=====] - 0s 1ms/step - loss: 0.6112 - accuracy: 0.6987
Epoch 32/75
77/77 [=====] - 0s 2ms/step - loss: 0.6101 - accuracy: 0.7052
Epoch 33/75
77/77 [=====] - 0s 2ms/step - loss: 0.6279 - accuracy: 0.6775
Epoch 34/75
77/77 [=====] - 0s 1ms/step - loss: 0.6170 - accuracy: 0.6824
Epoch 35/75
77/77 [=====] - 0s 2ms/step - loss: 0.6091 - accuracy: 0.7085
Epoch 36/75
77/77 [=====] - 0s 2ms/step - loss: 0.6178 - accuracy: 0.6873
Epoch 37/75
77/77 [=====] - 0s 2ms/step - loss: 0.6150 - accuracy: 0.6987

Epoch 38/75
77/77 [=====] - 0s 2ms/step - loss: 0.6052 - accuracy: 0.7052
Epoch 39/75
77/77 [=====] - 0s 2ms/step - loss: 0.6075 - accuracy: 0.6987
Epoch 40/75
77/77 [=====] - 0s 2ms/step - loss: 0.6137 - accuracy: 0.6824
Epoch 41/75
77/77 [=====] - 0s 2ms/step - loss: 0.6116 - accuracy: 0.6938
Epoch 42/75
77/77 [=====] - 0s 3ms/step - loss: 0.6125 - accuracy: 0.6873
Epoch 43/75
77/77 [=====] - 0s 3ms/step - loss: 0.6063 - accuracy: 0.6971
Epoch 44/75
77/77 [=====] - 0s 2ms/step - loss: 0.6128 - accuracy: 0.6954
Epoch 45/75
77/77 [=====] - 0s 2ms/step - loss: 0.6106 - accuracy: 0.6808
Epoch 46/75
77/77 [=====] - 0s 2ms/step - loss: 0.5969 - accuracy: 0.6889
Epoch 47/75
77/77 [=====] - 0s 2ms/step - loss: 0.6144 - accuracy: 0.6792
Epoch 48/75
77/77 [=====] - 0s 2ms/step - loss: 0.6059 - accuracy: 0.7020
Epoch 49/75
77/77 [=====] - 0s 2ms/step - loss: 0.6097 - accuracy: 0.6954
Epoch 50/75
77/77 [=====] - 0s 2ms/step - loss: 0.6099 - accuracy: 0.7003
Epoch 51/75
77/77 [=====] - 0s 2ms/step - loss: 0.5970 - accuracy: 0.7150
Epoch 52/75
77/77 [=====] - 0s 2ms/step - loss: 0.6004 - accuracy: 0.6922
Epoch 53/75
77/77 [=====] - 0s 2ms/step - loss: 0.5995 - accuracy: 0.7036
Epoch 54/75
77/77 [=====] - 0s 2ms/step - loss: 0.6094 - accuracy: 0.6889
Epoch 55/75
77/77 [=====] - 0s 2ms/step - loss: 0.6003 - accuracy: 0.7101
Epoch 56/75
77/77 [=====] - 0s 2ms/step - loss: 0.5999 - accuracy: 0.7036
Epoch 57/75
77/77 [=====] - 0s 2ms/step - loss: 0.5922 - accuracy: 0.7182
Epoch 58/75
77/77 [=====] - 0s 2ms/step - loss: 0.6088 - accuracy: 0.6743
Epoch 59/75
77/77 [=====] - 0s 2ms/step - loss: 0.5997 - accuracy: 0.6906
Epoch 60/75
77/77 [=====] - 0s 2ms/step - loss: 0.5983 - accuracy: 0.7052
Epoch 61/75
77/77 [=====] - 0s 2ms/step - loss: 0.6045 - accuracy: 0.7036
Epoch 62/75
77/77 [=====] - 0s 2ms/step - loss: 0.6005 - accuracy: 0.6873
Epoch 63/75
77/77 [=====] - 0s 2ms/step - loss: 0.6006 - accuracy: 0.6840
Epoch 64/75
77/77 [=====] - 0s 2ms/step - loss: 0.5878 - accuracy: 0.7215
Epoch 65/75
77/77 [=====] - 0s 3ms/step - loss: 0.6007 - accuracy: 0.7068
Epoch 66/75
77/77 [=====] - 0s 2ms/step - loss: 0.5930 - accuracy: 0.7134
Epoch 67/75
77/77 [=====] - 0s 2ms/step - loss: 0.5977 - accuracy: 0.6938
Epoch 68/75
77/77 [=====] - 0s 2ms/step - loss: 0.5888 - accuracy: 0.7101
Epoch 69/75
77/77 [=====] - 0s 2ms/step - loss: 0.5915 - accuracy: 0.7101
Epoch 70/75
77/77 [=====] - 0s 2ms/step - loss: 0.5993 - accuracy: 0.6889
Epoch 71/75
77/77 [=====] - 0s 2ms/step - loss: 0.5908 - accuracy: 0.7150
Epoch 72/75
77/77 [=====] - 0s 2ms/step - loss: 0.6095 - accuracy: 0.6775
Epoch 73/75
77/77 [=====] - 0s 2ms/step - loss: 0.5888 - accuracy: 0.7134
Epoch 74/75
77/77 [=====] - 0s 2ms/step - loss: 0.5913 - accuracy: 0.7052
Epoch 75/75
77/77 [=====] - 0s 2ms/step - loss: 0.5840 - accuracy: 0.7215
20/20 [=====] - 0s 2ms/step - loss: 0.6260 - accuracy: 0.6883
Epoch 1/75
77/77 [=====] - 1s 2ms/step - loss: 2.6429 - accuracy: 0.6270
Epoch 2/75
77/77 [=====] - 0s 2ms/step - loss: 1.4956 - accuracy: 0.6515
Epoch 3/75

```
77/77 [=====] - 0s 2ms/step - loss: 1.2621 - accuracy: 0.6564
Epoch 4/75
77/77 [=====] - 0s 1ms/step - loss: 1.0953 - accuracy: 0.6564
Epoch 5/75
77/77 [=====] - 0s 2ms/step - loss: 0.9767 - accuracy: 0.6564
Epoch 6/75
77/77 [=====] - 0s 1ms/step - loss: 0.8847 - accuracy: 0.6564
Epoch 7/75
77/77 [=====] - 0s 2ms/step - loss: 0.8255 - accuracy: 0.6564
Epoch 8/75
77/77 [=====] - 0s 1ms/step - loss: 0.7756 - accuracy: 0.6596
Epoch 9/75
77/77 [=====] - 0s 2ms/step - loss: 0.7407 - accuracy: 0.6547
Epoch 10/75
77/77 [=====] - 0s 1ms/step - loss: 0.7125 - accuracy: 0.6564
Epoch 11/75
77/77 [=====] - 0s 2ms/step - loss: 0.6948 - accuracy: 0.6564
Epoch 12/75
77/77 [=====] - 0s 1ms/step - loss: 0.6858 - accuracy: 0.6564
Epoch 13/75
77/77 [=====] - 0s 2ms/step - loss: 0.6722 - accuracy: 0.6580
Epoch 14/75
77/77 [=====] - 0s 1ms/step - loss: 0.6639 - accuracy: 0.6596
Epoch 15/75
77/77 [=====] - 0s 2ms/step - loss: 0.6544 - accuracy: 0.6564
Epoch 16/75
77/77 [=====] - 0s 1ms/step - loss: 0.6529 - accuracy: 0.6580
Epoch 17/75
77/77 [=====] - 0s 2ms/step - loss: 0.6464 - accuracy: 0.6498
Epoch 18/75
77/77 [=====] - 0s 2ms/step - loss: 0.6499 - accuracy: 0.6596
Epoch 19/75
77/77 [=====] - 0s 2ms/step - loss: 0.6434 - accuracy: 0.6564
Epoch 20/75
77/77 [=====] - 0s 2ms/step - loss: 0.6442 - accuracy: 0.6629
Epoch 21/75
77/77 [=====] - 0s 2ms/step - loss: 0.6392 - accuracy: 0.6564
Epoch 22/75
77/77 [=====] - 0s 4ms/step - loss: 0.6351 - accuracy: 0.6564
Epoch 23/75
77/77 [=====] - 0s 2ms/step - loss: 0.6323 - accuracy: 0.6857
Epoch 24/75
77/77 [=====] - 0s 1ms/step - loss: 0.6383 - accuracy: 0.6710
Epoch 25/75
77/77 [=====] - 0s 2ms/step - loss: 0.6245 - accuracy: 0.6987
Epoch 26/75
77/77 [=====] - 0s 1ms/step - loss: 0.6344 - accuracy: 0.6824
Epoch 27/75
77/77 [=====] - 0s 2ms/step - loss: 0.6280 - accuracy: 0.6873
Epoch 28/75
77/77 [=====] - 0s 1ms/step - loss: 0.6327 - accuracy: 0.6759
Epoch 29/75
77/77 [=====] - 0s 2ms/step - loss: 0.6334 - accuracy: 0.6922
Epoch 30/75
77/77 [=====] - 0s 1ms/step - loss: 0.6243 - accuracy: 0.6906
Epoch 31/75
77/77 [=====] - 0s 2ms/step - loss: 0.6235 - accuracy: 0.6743
Epoch 32/75
77/77 [=====] - 0s 1ms/step - loss: 0.6278 - accuracy: 0.6759
Epoch 33/75
77/77 [=====] - 0s 2ms/step - loss: 0.6318 - accuracy: 0.6775
Epoch 34/75
77/77 [=====] - 0s 1ms/step - loss: 0.6265 - accuracy: 0.6759
Epoch 35/75
77/77 [=====] - 0s 2ms/step - loss: 0.6233 - accuracy: 0.6857
Epoch 36/75
77/77 [=====] - 0s 2ms/step - loss: 0.6259 - accuracy: 0.6792
Epoch 37/75
77/77 [=====] - 0s 2ms/step - loss: 0.6255 - accuracy: 0.6873
Epoch 38/75
77/77 [=====] - 0s 3ms/step - loss: 0.6281 - accuracy: 0.6792
Epoch 39/75
77/77 [=====] - 0s 2ms/step - loss: 0.6212 - accuracy: 0.6906
Epoch 40/75
77/77 [=====] - 0s 2ms/step - loss: 0.6237 - accuracy: 0.6759
Epoch 41/75
77/77 [=====] - 0s 2ms/step - loss: 0.6184 - accuracy: 0.6824
Epoch 42/75
77/77 [=====] - 0s 2ms/step - loss: 0.6214 - accuracy: 0.7036
Epoch 43/75
77/77 [=====] - 0s 2ms/step - loss: 0.6227 - accuracy: 0.6645
Epoch 44/75
```

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77/77 [=====] - 0s 2ms/step - loss: 0.6231 - accuracy: 0.6971
Epoch 45/75
77/77 [=====] - 0s 2ms/step - loss: 0.6185 - accuracy: 0.6857
Epoch 46/75
77/77 [=====] - 0s 2ms/step - loss: 0.6220 - accuracy: 0.7052
Epoch 47/75
77/77 [=====] - 0s 2ms/step - loss: 0.6157 - accuracy: 0.6873
Epoch 48/75
77/77 [=====] - 0s 2ms/step - loss: 0.6139 - accuracy: 0.6808
Epoch 49/75
77/77 [=====] - 0s 2ms/step - loss: 0.6128 - accuracy: 0.6808
Epoch 50/75
77/77 [=====] - 0s 2ms/step - loss: 0.6145 - accuracy: 0.6873
Epoch 51/75
77/77 [=====] - 0s 2ms/step - loss: 0.6110 - accuracy: 0.6922
Epoch 52/75
77/77 [=====] - 0s 2ms/step - loss: 0.6227 - accuracy: 0.6726
Epoch 53/75
77/77 [=====] - 0s 3ms/step - loss: 0.6144 - accuracy: 0.7003
Epoch 54/75
77/77 [=====] - 0s 2ms/step - loss: 0.6098 - accuracy: 0.6889
Epoch 55/75
77/77 [=====] - 0s 2ms/step - loss: 0.6170 - accuracy: 0.6808
Epoch 56/75
77/77 [=====] - 0s 2ms/step - loss: 0.6116 - accuracy: 0.6954
Epoch 57/75
77/77 [=====] - 0s 1ms/step - loss: 0.6090 - accuracy: 0.6971
Epoch 58/75
77/77 [=====] - 0s 2ms/step - loss: 0.6160 - accuracy: 0.6889
Epoch 59/75
77/77 [=====] - 0s 1ms/step - loss: 0.6125 - accuracy: 0.6824
Epoch 60/75
77/77 [=====] - 0s 2ms/step - loss: 0.6184 - accuracy: 0.6759
Epoch 61/75
77/77 [=====] - 0s 2ms/step - loss: 0.6070 - accuracy: 0.6873
Epoch 62/75
77/77 [=====] - 0s 2ms/step - loss: 0.6012 - accuracy: 0.6954
Epoch 63/75
77/77 [=====] - 0s 2ms/step - loss: 0.6104 - accuracy: 0.6922
Epoch 64/75
77/77 [=====] - 0s 2ms/step - loss: 0.6123 - accuracy: 0.6873
Epoch 65/75
77/77 [=====] - 0s 2ms/step - loss: 0.6239 - accuracy: 0.6857
Epoch 66/75
77/77 [=====] - 0s 2ms/step - loss: 0.6171 - accuracy: 0.6906
Epoch 67/75
77/77 [=====] - 0s 2ms/step - loss: 0.6063 - accuracy: 0.6938
Epoch 68/75
77/77 [=====] - 0s 2ms/step - loss: 0.6044 - accuracy: 0.6906
Epoch 69/75
77/77 [=====] - 0s 3ms/step - loss: 0.6027 - accuracy: 0.6873
Epoch 70/75
77/77 [=====] - 0s 2ms/step - loss: 0.6187 - accuracy: 0.6840
Epoch 71/75
77/77 [=====] - 0s 2ms/step - loss: 0.6057 - accuracy: 0.6938
Epoch 72/75
77/77 [=====] - 0s 2ms/step - loss: 0.6112 - accuracy: 0.6938
Epoch 73/75
77/77 [=====] - 0s 2ms/step - loss: 0.6109 - accuracy: 0.6987
Epoch 74/75
77/77 [=====] - 0s 2ms/step - loss: 0.6016 - accuracy: 0.7134
Epoch 75/75
77/77 [=====] - 0s 2ms/step - loss: 0.5921 - accuracy: 0.7215
20/20 [=====] - 0s 2ms/step - loss: 0.6127 - accuracy: 0.6948
Epoch 1/75
77/77 [=====] - 0s 1ms/step - loss: 3.0964 - accuracy: 0.6163
Epoch 2/75
77/77 [=====] - 0s 2ms/step - loss: 1.7687 - accuracy: 0.6276
Epoch 3/75
77/77 [=====] - 0s 2ms/step - loss: 1.4723 - accuracy: 0.6276
Epoch 4/75
77/77 [=====] - 0s 3ms/step - loss: 1.2571 - accuracy: 0.6276
Epoch 5/75
77/77 [=====] - 0s 2ms/step - loss: 1.0976 - accuracy: 0.6276
Epoch 6/75
77/77 [=====] - 0s 2ms/step - loss: 0.9784 - accuracy: 0.6276
Epoch 7/75
77/77 [=====] - 0s 2ms/step - loss: 0.8902 - accuracy: 0.6276
Epoch 8/75
77/77 [=====] - 0s 2ms/step - loss: 0.8287 - accuracy: 0.6276
Epoch 9/75
77/77 [=====] - 0s 2ms/step - loss: 0.7823 - accuracy: 0.6276
```

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Epoch 10/75
77/77 [=====] - 0s 2ms/step - loss: 0.7512 - accuracy: 0.6276
Epoch 11/75
77/77 [=====] - 0s 2ms/step - loss: 0.7224 - accuracy: 0.6276
Epoch 12/75
77/77 [=====] - 0s 3ms/step - loss: 0.7042 - accuracy: 0.6276
Epoch 13/75
77/77 [=====] - 0s 1ms/step - loss: 0.6915 - accuracy: 0.6276
Epoch 14/75
77/77 [=====] - 0s 2ms/step - loss: 0.6816 - accuracy: 0.6276
Epoch 15/75
77/77 [=====] - 0s 1ms/step - loss: 0.6828 - accuracy: 0.6276
Epoch 16/75
77/77 [=====] - 0s 2ms/step - loss: 0.6719 - accuracy: 0.6276
Epoch 17/75
77/77 [=====] - 0s 2ms/step - loss: 0.6696 - accuracy: 0.6276
Epoch 18/75
77/77 [=====] - 0s 2ms/step - loss: 0.6676 - accuracy: 0.6276
Epoch 19/75
77/77 [=====] - 0s 2ms/step - loss: 0.6651 - accuracy: 0.6276
Epoch 20/75
77/77 [=====] - 0s 2ms/step - loss: 0.6606 - accuracy: 0.6276
Epoch 21/75
77/77 [=====] - 0s 1ms/step - loss: 0.6655 - accuracy: 0.6276
Epoch 22/75
77/77 [=====] - 0s 2ms/step - loss: 0.6572 - accuracy: 0.6276
Epoch 23/75
77/77 [=====] - 0s 1ms/step - loss: 0.6618 - accuracy: 0.6276
Epoch 24/75
77/77 [=====] - 0s 3ms/step - loss: 0.6581 - accuracy: 0.6276
Epoch 25/75
77/77 [=====] - 0s 2ms/step - loss: 0.6654 - accuracy: 0.6276
Epoch 26/75
77/77 [=====] - 0s 2ms/step - loss: 0.6592 - accuracy: 0.6276
Epoch 27/75
77/77 [=====] - 0s 2ms/step - loss: 0.6625 - accuracy: 0.6276
Epoch 28/75
77/77 [=====] - 0s 2ms/step - loss: 0.6583 - accuracy: 0.6276
Epoch 29/75
77/77 [=====] - 0s 2ms/step - loss: 0.6585 - accuracy: 0.6276
Epoch 30/75
77/77 [=====] - 0s 2ms/step - loss: 0.6586 - accuracy: 0.6276
Epoch 31/75
77/77 [=====] - 0s 2ms/step - loss: 0.6628 - accuracy: 0.6276
Epoch 32/75
77/77 [=====] - 0s 2ms/step - loss: 0.6588 - accuracy: 0.6276
Epoch 33/75
77/77 [=====] - 0s 2ms/step - loss: 0.6633 - accuracy: 0.6276
Epoch 34/75
77/77 [=====] - 0s 2ms/step - loss: 0.6590 - accuracy: 0.6276
Epoch 35/75
77/77 [=====] - 0s 1ms/step - loss: 0.6611 - accuracy: 0.6276
Epoch 36/75
77/77 [=====] - 0s 2ms/step - loss: 0.6595 - accuracy: 0.6276
Epoch 37/75
77/77 [=====] - 0s 1ms/step - loss: 0.6612 - accuracy: 0.6276
Epoch 38/75
77/77 [=====] - 0s 2ms/step - loss: 0.6593 - accuracy: 0.6276
Epoch 39/75
77/77 [=====] - 0s 1ms/step - loss: 0.6621 - accuracy: 0.6276
Epoch 40/75
77/77 [=====] - 0s 2ms/step - loss: 0.6573 - accuracy: 0.6276
Epoch 41/75
77/77 [=====] - 0s 2ms/step - loss: 0.6600 - accuracy: 0.6276
Epoch 42/75
77/77 [=====] - 0s 2ms/step - loss: 0.6612 - accuracy: 0.6276
Epoch 43/75
77/77 [=====] - 0s 1ms/step - loss: 0.6613 - accuracy: 0.6276
Epoch 44/75
77/77 [=====] - 0s 2ms/step - loss: 0.6615 - accuracy: 0.6276
Epoch 45/75
77/77 [=====] - 0s 1ms/step - loss: 0.6568 - accuracy: 0.6276
Epoch 46/75
77/77 [=====] - 0s 2ms/step - loss: 0.6639 - accuracy: 0.6276
Epoch 47/75
77/77 [=====] - 0s 1ms/step - loss: 0.6600 - accuracy: 0.6276
Epoch 48/75
77/77 [=====] - 0s 2ms/step - loss: 0.6534 - accuracy: 0.6276
Epoch 49/75
77/77 [=====] - 0s 1ms/step - loss: 0.6561 - accuracy: 0.6276
Epoch 50/75
77/77 [=====] - 0s 2ms/step - loss: 0.6602 - accuracy: 0.6276
```

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Epoch 51/75
77/77 [=====] - 0s 2ms/step - loss: 0.6620 - accuracy: 0.6276
Epoch 52/75
77/77 [=====] - 0s 3ms/step - loss: 0.6651 - accuracy: 0.6276
Epoch 53/75
77/77 [=====] - 0s 3ms/step - loss: 0.6628 - accuracy: 0.6276
Epoch 54/75
77/77 [=====] - 0s 2ms/step - loss: 0.6613 - accuracy: 0.6276
Epoch 55/75
77/77 [=====] - 0s 2ms/step - loss: 0.6633 - accuracy: 0.6276
Epoch 56/75
77/77 [=====] - 0s 2ms/step - loss: 0.6618 - accuracy: 0.6276
Epoch 57/75
77/77 [=====] - 0s 2ms/step - loss: 0.6598 - accuracy: 0.6276
Epoch 58/75
77/77 [=====] - 0s 2ms/step - loss: 0.6629 - accuracy: 0.6276
Epoch 59/75
77/77 [=====] - 0s 2ms/step - loss: 0.6572 - accuracy: 0.6276
Epoch 60/75
77/77 [=====] - 0s 2ms/step - loss: 0.6591 - accuracy: 0.6276
Epoch 61/75
77/77 [=====] - 0s 2ms/step - loss: 0.6605 - accuracy: 0.6276
Epoch 62/75
77/77 [=====] - 0s 2ms/step - loss: 0.6514 - accuracy: 0.6276
Epoch 63/75
77/77 [=====] - 0s 1ms/step - loss: 0.6607 - accuracy: 0.6276
Epoch 64/75
77/77 [=====] - 0s 2ms/step - loss: 0.6610 - accuracy: 0.6276
Epoch 65/75
77/77 [=====] - 0s 3ms/step - loss: 0.6616 - accuracy: 0.6276
Epoch 66/75
77/77 [=====] - 0s 2ms/step - loss: 0.6579 - accuracy: 0.6276
Epoch 67/75
77/77 [=====] - 0s 2ms/step - loss: 0.6578 - accuracy: 0.6276
Epoch 68/75
77/77 [=====] - 0s 2ms/step - loss: 0.6611 - accuracy: 0.6276
Epoch 69/75
77/77 [=====] - 0s 2ms/step - loss: 0.6651 - accuracy: 0.6276
Epoch 70/75
77/77 [=====] - 0s 2ms/step - loss: 0.6640 - accuracy: 0.6276
Epoch 71/75
77/77 [=====] - 0s 2ms/step - loss: 0.6611 - accuracy: 0.6276
Epoch 72/75
77/77 [=====] - 0s 2ms/step - loss: 0.6615 - accuracy: 0.6276
Epoch 73/75
77/77 [=====] - 0s 2ms/step - loss: 0.6563 - accuracy: 0.6276
Epoch 74/75
77/77 [=====] - 0s 2ms/step - loss: 0.6594 - accuracy: 0.6276
Epoch 75/75
77/77 [=====] - 0s 2ms/step - loss: 0.6658 - accuracy: 0.6276
20/20 [=====] - 1s 2ms/step - loss: 0.5719 - accuracy: 0.7451
Epoch 1/75
77/77 [=====] - 1s 2ms/step - loss: 2.9097 - accuracy: 0.5789
Epoch 2/75
77/77 [=====] - 0s 2ms/step - loss: 1.6183 - accuracy: 0.6390
Epoch 3/75
77/77 [=====] - 0s 3ms/step - loss: 1.3527 - accuracy: 0.6293
Epoch 4/75
77/77 [=====] - 0s 2ms/step - loss: 1.1504 - accuracy: 0.6520
Epoch 5/75
77/77 [=====] - 0s 2ms/step - loss: 1.0132 - accuracy: 0.6585
Epoch 6/75
77/77 [=====] - 0s 2ms/step - loss: 0.9124 - accuracy: 0.6553
Epoch 7/75
77/77 [=====] - 0s 2ms/step - loss: 0.8406 - accuracy: 0.6683
Epoch 8/75
77/77 [=====] - 0s 2ms/step - loss: 0.7905 - accuracy: 0.6634
Epoch 9/75
77/77 [=====] - 0s 2ms/step - loss: 0.7496 - accuracy: 0.6602
Epoch 10/75
77/77 [=====] - 0s 2ms/step - loss: 0.7239 - accuracy: 0.6715
Epoch 11/75
77/77 [=====] - 0s 2ms/step - loss: 0.6951 - accuracy: 0.6667
Epoch 12/75
77/77 [=====] - 0s 2ms/step - loss: 0.6845 - accuracy: 0.6732
Epoch 13/75
77/77 [=====] - 0s 2ms/step - loss: 0.6719 - accuracy: 0.6813
Epoch 14/75
77/77 [=====] - 0s 2ms/step - loss: 0.6629 - accuracy: 0.6846
Epoch 15/75
77/77 [=====] - 0s 3ms/step - loss: 0.6573 - accuracy: 0.6813
Epoch 16/75
```

77/77	[=====]	- 0s 2ms/step	- loss: 0.6532	- accuracy: 0.6748
Epoch 17/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6422	- accuracy: 0.6683
Epoch 18/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6447	- accuracy: 0.6585
Epoch 19/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6392	- accuracy: 0.6732
Epoch 20/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6349	- accuracy: 0.6797
Epoch 21/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6349	- accuracy: 0.6813
Epoch 22/75				
77/77	[=====]	- 0s 1ms/step	- loss: 0.6389	- accuracy: 0.6667
Epoch 23/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6324	- accuracy: 0.6764
Epoch 24/75				
77/77	[=====]	- 0s 1ms/step	- loss: 0.6307	- accuracy: 0.6748
Epoch 25/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6309	- accuracy: 0.6780
Epoch 26/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6264	- accuracy: 0.6846
Epoch 27/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6330	- accuracy: 0.6780
Epoch 28/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6315	- accuracy: 0.6829
Epoch 29/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6281	- accuracy: 0.6780
Epoch 30/75				
77/77	[=====]	- 0s 1ms/step	- loss: 0.6310	- accuracy: 0.6748
Epoch 31/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6209	- accuracy: 0.6846
Epoch 32/75				
77/77	[=====]	- 0s 1ms/step	- loss: 0.6248	- accuracy: 0.6829
Epoch 33/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6289	- accuracy: 0.6667
Epoch 34/75				
77/77	[=====]	- 0s 1ms/step	- loss: 0.6225	- accuracy: 0.6911
Epoch 35/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6272	- accuracy: 0.6911
Epoch 36/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6229	- accuracy: 0.6829
Epoch 37/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6227	- accuracy: 0.6797
Epoch 38/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6220	- accuracy: 0.6829
Epoch 39/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6203	- accuracy: 0.6878
Epoch 40/75				
77/77	[=====]	- 0s 1ms/step	- loss: 0.6254	- accuracy: 0.6683
Epoch 41/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6237	- accuracy: 0.6927
Epoch 42/75				
77/77	[=====]	- 0s 1ms/step	- loss: 0.6218	- accuracy: 0.6862
Epoch 43/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6139	- accuracy: 0.6959
Epoch 44/75				
77/77	[=====]	- 0s 1ms/step	- loss: 0.6210	- accuracy: 0.6699
Epoch 45/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6198	- accuracy: 0.6846
Epoch 46/75				
77/77	[=====]	- 0s 1ms/step	- loss: 0.6165	- accuracy: 0.6862
Epoch 47/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6187	- accuracy: 0.6780
Epoch 48/75				
77/77	[=====]	- 0s 1ms/step	- loss: 0.6224	- accuracy: 0.6683
Epoch 49/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6170	- accuracy: 0.6911
Epoch 50/75				
77/77	[=====]	- 0s 1ms/step	- loss: 0.6171	- accuracy: 0.6829
Epoch 51/75				
77/77	[=====]	- 0s 3ms/step	- loss: 0.6185	- accuracy: 0.6862
Epoch 52/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6202	- accuracy: 0.6715
Epoch 53/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6181	- accuracy: 0.6829
Epoch 54/75				
77/77	[=====]	- 0s 1ms/step	- loss: 0.6123	- accuracy: 0.6992
Epoch 55/75				
77/77	[=====]	- 0s 2ms/step	- loss: 0.6181	- accuracy: 0.6992
Epoch 56/75				
77/77	[=====]	- 0s 1ms/step	- loss: 0.6139	- accuracy: 0.6764
Epoch 57/75				

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77/77 [=====] - 0s 2ms/step - loss: 0.6088 - accuracy: 0.6780
Epoch 58/75
77/77 [=====] - 0s 1ms/step - loss: 0.6134 - accuracy: 0.6829
Epoch 59/75
77/77 [=====] - 0s 1ms/step - loss: 0.6073 - accuracy: 0.7024
Epoch 60/75
77/77 [=====] - 0s 2ms/step - loss: 0.6116 - accuracy: 0.6862
Epoch 61/75
77/77 [=====] - 0s 2ms/step - loss: 0.6084 - accuracy: 0.6927
Epoch 62/75
77/77 [=====] - 0s 2ms/step - loss: 0.6109 - accuracy: 0.6813
Epoch 63/75
77/77 [=====] - 0s 2ms/step - loss: 0.6087 - accuracy: 0.6780
Epoch 64/75
77/77 [=====] - 0s 2ms/step - loss: 0.6113 - accuracy: 0.6878
Epoch 65/75
77/77 [=====] - 0s 2ms/step - loss: 0.6131 - accuracy: 0.6797
Epoch 66/75
77/77 [=====] - 0s 2ms/step - loss: 0.6103 - accuracy: 0.6878
Epoch 67/75
77/77 [=====] - 0s 1ms/step - loss: 0.6116 - accuracy: 0.6780
Epoch 68/75
77/77 [=====] - 0s 2ms/step - loss: 0.6066 - accuracy: 0.6959
Epoch 69/75
77/77 [=====] - 0s 2ms/step - loss: 0.6067 - accuracy: 0.7041
Epoch 70/75
77/77 [=====] - 0s 2ms/step - loss: 0.6127 - accuracy: 0.6748
Epoch 71/75
77/77 [=====] - 0s 2ms/step - loss: 0.5989 - accuracy: 0.6894
Epoch 72/75
77/77 [=====] - 0s 2ms/step - loss: 0.6056 - accuracy: 0.7041
Epoch 73/75
77/77 [=====] - 0s 2ms/step - loss: 0.6081 - accuracy: 0.6878
Epoch 74/75
77/77 [=====] - 0s 2ms/step - loss: 0.6002 - accuracy: 0.6927
Epoch 75/75
77/77 [=====] - 0s 3ms/step - loss: 0.6054 - accuracy: 0.6976
20/20 [=====] - 0s 1ms/step - loss: 0.6569 - accuracy: 0.6601
Epoch 1/100
77/77 [=====] - 1s 1ms/step - loss: 1.3067 - accuracy: 0.6221
Epoch 2/100
77/77 [=====] - 0s 2ms/step - loss: 0.7799 - accuracy: 0.6580
Epoch 3/100
77/77 [=====] - 0s 2ms/step - loss: 0.7602 - accuracy: 0.6808
Epoch 4/100
77/77 [=====] - 0s 3ms/step - loss: 0.7587 - accuracy: 0.6743
Epoch 5/100
77/77 [=====] - 0s 3ms/step - loss: 0.7567 - accuracy: 0.6710
Epoch 6/100
77/77 [=====] - 0s 2ms/step - loss: 0.7413 - accuracy: 0.6629
Epoch 7/100
77/77 [=====] - 0s 2ms/step - loss: 0.7374 - accuracy: 0.6564
Epoch 8/100
77/77 [=====] - 0s 2ms/step - loss: 0.7318 - accuracy: 0.6710
Epoch 9/100
77/77 [=====] - 0s 2ms/step - loss: 0.7264 - accuracy: 0.6694
Epoch 10/100
77/77 [=====] - 0s 2ms/step - loss: 0.7158 - accuracy: 0.6596
Epoch 11/100
77/77 [=====] - 0s 2ms/step - loss: 0.7179 - accuracy: 0.6661
Epoch 12/100
77/77 [=====] - 0s 3ms/step - loss: 0.7150 - accuracy: 0.6645
Epoch 13/100
77/77 [=====] - 0s 2ms/step - loss: 0.7090 - accuracy: 0.6743
Epoch 14/100
77/77 [=====] - 0s 1ms/step - loss: 0.7054 - accuracy: 0.6694
Epoch 15/100
77/77 [=====] - 0s 2ms/step - loss: 0.6987 - accuracy: 0.6824
Epoch 16/100
77/77 [=====] - 0s 1ms/step - loss: 0.6895 - accuracy: 0.6726
Epoch 17/100
77/77 [=====] - 0s 2ms/step - loss: 0.7009 - accuracy: 0.6645
Epoch 18/100
77/77 [=====] - 0s 1ms/step - loss: 0.6892 - accuracy: 0.6792
Epoch 19/100
77/77 [=====] - 0s 2ms/step - loss: 0.6920 - accuracy: 0.6710
Epoch 20/100
77/77 [=====] - 0s 1ms/step - loss: 0.6910 - accuracy: 0.6694
Epoch 21/100
77/77 [=====] - 0s 2ms/step - loss: 0.6880 - accuracy: 0.6759
Epoch 22/100
77/77 [=====] - 0s 1ms/step - loss: 0.6804 - accuracy: 0.6759
```

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Epoch 23/100
77/77 [=====] - 0s 2ms/step - loss: 0.6754 - accuracy: 0.6661
Epoch 24/100
77/77 [=====] - 0s 1ms/step - loss: 0.6784 - accuracy: 0.6808
Epoch 25/100
77/77 [=====] - 0s 2ms/step - loss: 0.6733 - accuracy: 0.6808
Epoch 26/100
77/77 [=====] - 0s 2ms/step - loss: 0.6710 - accuracy: 0.6808
Epoch 27/100
77/77 [=====] - 0s 3ms/step - loss: 0.6793 - accuracy: 0.6759
Epoch 28/100
77/77 [=====] - 0s 2ms/step - loss: 0.6664 - accuracy: 0.6645
Epoch 29/100
77/77 [=====] - 0s 2ms/step - loss: 0.6687 - accuracy: 0.6694
Epoch 30/100
77/77 [=====] - 0s 2ms/step - loss: 0.6680 - accuracy: 0.6678
Epoch 31/100
77/77 [=====] - 0s 2ms/step - loss: 0.6662 - accuracy: 0.6889
Epoch 32/100
77/77 [=====] - 0s 2ms/step - loss: 0.6565 - accuracy: 0.6759
Epoch 33/100
77/77 [=====] - 0s 2ms/step - loss: 0.6633 - accuracy: 0.6710
Epoch 34/100
77/77 [=====] - 0s 2ms/step - loss: 0.6562 - accuracy: 0.6873
Epoch 35/100
77/77 [=====] - 0s 3ms/step - loss: 0.6554 - accuracy: 0.6792
Epoch 36/100
77/77 [=====] - 0s 2ms/step - loss: 0.6543 - accuracy: 0.6694
Epoch 37/100
77/77 [=====] - 0s 2ms/step - loss: 0.6536 - accuracy: 0.6694
Epoch 38/100
77/77 [=====] - 0s 2ms/step - loss: 0.6524 - accuracy: 0.6678
Epoch 39/100
77/77 [=====] - 0s 2ms/step - loss: 0.6506 - accuracy: 0.6808
Epoch 40/100
77/77 [=====] - 0s 1ms/step - loss: 0.6454 - accuracy: 0.6857
Epoch 41/100
77/77 [=====] - 0s 2ms/step - loss: 0.6446 - accuracy: 0.6824
Epoch 42/100
77/77 [=====] - 0s 2ms/step - loss: 0.6540 - accuracy: 0.6726
Epoch 43/100
77/77 [=====] - 0s 2ms/step - loss: 0.6370 - accuracy: 0.6889
Epoch 44/100
77/77 [=====] - 0s 2ms/step - loss: 0.6389 - accuracy: 0.6906
Epoch 45/100
77/77 [=====] - 0s 2ms/step - loss: 0.6328 - accuracy: 0.6759
Epoch 46/100
77/77 [=====] - 0s 2ms/step - loss: 0.6358 - accuracy: 0.6857
Epoch 47/100
77/77 [=====] - 0s 2ms/step - loss: 0.6350 - accuracy: 0.6792
Epoch 48/100
77/77 [=====] - 0s 2ms/step - loss: 0.6366 - accuracy: 0.7068
Epoch 49/100
77/77 [=====] - 0s 2ms/step - loss: 0.6303 - accuracy: 0.6987
Epoch 50/100
77/77 [=====] - 0s 2ms/step - loss: 0.6403 - accuracy: 0.6857
Epoch 51/100
77/77 [=====] - 0s 2ms/step - loss: 0.6299 - accuracy: 0.6824
Epoch 52/100
77/77 [=====] - 0s 2ms/step - loss: 0.6324 - accuracy: 0.6857
Epoch 53/100
77/77 [=====] - 0s 2ms/step - loss: 0.6220 - accuracy: 0.7101
Epoch 54/100
77/77 [=====] - 0s 2ms/step - loss: 0.6260 - accuracy: 0.6873
Epoch 55/100
77/77 [=====] - 0s 2ms/step - loss: 0.6271 - accuracy: 0.6889
Epoch 56/100
77/77 [=====] - 0s 2ms/step - loss: 0.6247 - accuracy: 0.6857
Epoch 57/100
77/77 [=====] - 0s 2ms/step - loss: 0.6283 - accuracy: 0.6922
Epoch 58/100
77/77 [=====] - 0s 2ms/step - loss: 0.6200 - accuracy: 0.6987
Epoch 59/100
77/77 [=====] - 0s 2ms/step - loss: 0.6200 - accuracy: 0.6954
Epoch 60/100
77/77 [=====] - 0s 2ms/step - loss: 0.6158 - accuracy: 0.6971
Epoch 61/100
77/77 [=====] - 0s 3ms/step - loss: 0.6209 - accuracy: 0.7182
Epoch 62/100
77/77 [=====] - 0s 2ms/step - loss: 0.6123 - accuracy: 0.7003
Epoch 63/100
77/77 [=====] - 0s 2ms/step - loss: 0.6141 - accuracy: 0.7166
```



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Epoch 64/100
77/77 [=====] - 0s 2ms/step - loss: 0.6132 - accuracy: 0.7085
Epoch 65/100
77/77 [=====] - 0s 2ms/step - loss: 0.6117 - accuracy: 0.6971
Epoch 66/100
77/77 [=====] - 0s 3ms/step - loss: 0.6145 - accuracy: 0.6857
Epoch 67/100
77/77 [=====] - 0s 2ms/step - loss: 0.6106 - accuracy: 0.7101
Epoch 68/100
77/77 [=====] - 0s 2ms/step - loss: 0.6042 - accuracy: 0.7085
Epoch 69/100
77/77 [=====] - 0s 3ms/step - loss: 0.6095 - accuracy: 0.7231
Epoch 70/100
77/77 [=====] - 0s 2ms/step - loss: 0.6123 - accuracy: 0.6938
Epoch 71/100
77/77 [=====] - 0s 2ms/step - loss: 0.6071 - accuracy: 0.6954
Epoch 72/100
77/77 [=====] - 0s 1ms/step - loss: 0.6004 - accuracy: 0.7036
Epoch 73/100
77/77 [=====] - 0s 2ms/step - loss: 0.6067 - accuracy: 0.6971
Epoch 74/100
77/77 [=====] - 0s 1ms/step - loss: 0.6005 - accuracy: 0.7182
Epoch 75/100
77/77 [=====] - 0s 2ms/step - loss: 0.6033 - accuracy: 0.7085
Epoch 76/100
77/77 [=====] - 0s 1ms/step - loss: 0.6056 - accuracy: 0.7003
Epoch 77/100
77/77 [=====] - 0s 2ms/step - loss: 0.5999 - accuracy: 0.7101
Epoch 78/100
77/77 [=====] - 0s 1ms/step - loss: 0.6103 - accuracy: 0.7134
Epoch 79/100
77/77 [=====] - 0s 2ms/step - loss: 0.5956 - accuracy: 0.7117
Epoch 80/100
77/77 [=====] - 0s 1ms/step - loss: 0.5992 - accuracy: 0.7166
Epoch 81/100
77/77 [=====] - 0s 3ms/step - loss: 0.5938 - accuracy: 0.7182
Epoch 82/100
77/77 [=====] - 0s 1ms/step - loss: 0.5955 - accuracy: 0.7166
Epoch 83/100
77/77 [=====] - 0s 2ms/step - loss: 0.5864 - accuracy: 0.7166
Epoch 84/100
77/77 [=====] - 0s 1ms/step - loss: 0.5960 - accuracy: 0.7199
Epoch 85/100
77/77 [=====] - 0s 2ms/step - loss: 0.5927 - accuracy: 0.7166
Epoch 86/100
77/77 [=====] - 0s 2ms/step - loss: 0.6012 - accuracy: 0.7036
Epoch 87/100
77/77 [=====] - 0s 2ms/step - loss: 0.5915 - accuracy: 0.7215
Epoch 88/100
77/77 [=====] - 0s 2ms/step - loss: 0.6002 - accuracy: 0.7166
Epoch 89/100
77/77 [=====] - 0s 2ms/step - loss: 0.5999 - accuracy: 0.7020
Epoch 90/100
77/77 [=====] - 0s 2ms/step - loss: 0.6003 - accuracy: 0.6906
Epoch 91/100
77/77 [=====] - 0s 2ms/step - loss: 0.5954 - accuracy: 0.7003
Epoch 92/100
77/77 [=====] - 0s 2ms/step - loss: 0.5865 - accuracy: 0.7166
Epoch 93/100
77/77 [=====] - 0s 2ms/step - loss: 0.5949 - accuracy: 0.7150
Epoch 94/100
77/77 [=====] - 0s 2ms/step - loss: 0.5859 - accuracy: 0.7231
Epoch 95/100
77/77 [=====] - 0s 2ms/step - loss: 0.5930 - accuracy: 0.7101
Epoch 96/100
77/77 [=====] - 0s 3ms/step - loss: 0.5925 - accuracy: 0.7036
Epoch 97/100
77/77 [=====] - 0s 2ms/step - loss: 0.5845 - accuracy: 0.6987
Epoch 98/100
77/77 [=====] - 0s 2ms/step - loss: 0.5955 - accuracy: 0.6954
Epoch 99/100
77/77 [=====] - 0s 2ms/step - loss: 0.5929 - accuracy: 0.7182
Epoch 100/100
77/77 [=====] - 0s 2ms/step - loss: 0.5789 - accuracy: 0.7150
20/20 [=====] - 0s 992us/step - loss: 0.6412 - accuracy: 0.6948
Epoch 1/100
77/77 [=====] - 1s 2ms/step - loss: 1.5080 - accuracy: 0.6042
Epoch 2/100
77/77 [=====] - 0s 2ms/step - loss: 0.8313 - accuracy: 0.6596
Epoch 3/100
77/77 [=====] - 0s 2ms/step - loss: 0.8072 - accuracy: 0.6726
Epoch 4/100
```

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77/77 [=====] - 0s 2ms/step - loss: 0.7928 - accuracy: 0.6710
Epoch 5/100
77/77 [=====] - 0s 3ms/step - loss: 0.7821 - accuracy: 0.6743
Epoch 6/100
77/77 [=====] - 0s 2ms/step - loss: 0.7734 - accuracy: 0.6824
Epoch 7/100
77/77 [=====] - 0s 2ms/step - loss: 0.7619 - accuracy: 0.6694
Epoch 8/100
77/77 [=====] - 0s 2ms/step - loss: 0.7564 - accuracy: 0.6759
Epoch 9/100
77/77 [=====] - 0s 2ms/step - loss: 0.7507 - accuracy: 0.6889
Epoch 10/100
77/77 [=====] - 0s 2ms/step - loss: 0.7434 - accuracy: 0.6775
Epoch 11/100
77/77 [=====] - 0s 2ms/step - loss: 0.7360 - accuracy: 0.6726
Epoch 12/100
77/77 [=====] - 0s 2ms/step - loss: 0.7267 - accuracy: 0.6792
Epoch 13/100
77/77 [=====] - 0s 2ms/step - loss: 0.7209 - accuracy: 0.6889
Epoch 14/100
77/77 [=====] - 0s 2ms/step - loss: 0.7123 - accuracy: 0.6906
Epoch 15/100
77/77 [=====] - 0s 2ms/step - loss: 0.7070 - accuracy: 0.6938
Epoch 16/100
77/77 [=====] - 0s 3ms/step - loss: 0.6962 - accuracy: 0.6938
Epoch 17/100
77/77 [=====] - 0s 2ms/step - loss: 0.6958 - accuracy: 0.6889
Epoch 18/100
77/77 [=====] - 0s 2ms/step - loss: 0.6901 - accuracy: 0.6922
Epoch 19/100
77/77 [=====] - 0s 2ms/step - loss: 0.6842 - accuracy: 0.6889
Epoch 20/100
77/77 [=====] - 0s 2ms/step - loss: 0.6784 - accuracy: 0.6906
Epoch 21/100
77/77 [=====] - 0s 1ms/step - loss: 0.6738 - accuracy: 0.7085
Epoch 22/100
77/77 [=====] - 0s 2ms/step - loss: 0.6695 - accuracy: 0.7068
Epoch 23/100
77/77 [=====] - 0s 2ms/step - loss: 0.6675 - accuracy: 0.7052
Epoch 24/100
77/77 [=====] - 0s 2ms/step - loss: 0.6595 - accuracy: 0.7020
Epoch 25/100
77/77 [=====] - 0s 1ms/step - loss: 0.6604 - accuracy: 0.7166
Epoch 26/100
77/77 [=====] - 0s 2ms/step - loss: 0.6525 - accuracy: 0.6938
Epoch 27/100
77/77 [=====] - 0s 2ms/step - loss: 0.6449 - accuracy: 0.7248
Epoch 28/100
77/77 [=====] - 0s 3ms/step - loss: 0.6461 - accuracy: 0.6971
Epoch 29/100
77/77 [=====] - 0s 1ms/step - loss: 0.6434 - accuracy: 0.6954
Epoch 30/100
77/77 [=====] - 0s 2ms/step - loss: 0.6391 - accuracy: 0.7101
Epoch 31/100
77/77 [=====] - 0s 1ms/step - loss: 0.6398 - accuracy: 0.7020
Epoch 32/100
77/77 [=====] - 0s 2ms/step - loss: 0.6371 - accuracy: 0.7085
Epoch 33/100
77/77 [=====] - 0s 1ms/step - loss: 0.6299 - accuracy: 0.7003
Epoch 34/100
77/77 [=====] - 0s 2ms/step - loss: 0.6284 - accuracy: 0.6987
Epoch 35/100
77/77 [=====] - 0s 2ms/step - loss: 0.6225 - accuracy: 0.7052
Epoch 36/100
77/77 [=====] - 0s 2ms/step - loss: 0.6233 - accuracy: 0.7003
Epoch 37/100
77/77 [=====] - 0s 2ms/step - loss: 0.6186 - accuracy: 0.7003
Epoch 38/100
77/77 [=====] - 0s 2ms/step - loss: 0.6161 - accuracy: 0.7117
Epoch 39/100
77/77 [=====] - 0s 2ms/step - loss: 0.6116 - accuracy: 0.7248
Epoch 40/100
77/77 [=====] - 0s 2ms/step - loss: 0.6155 - accuracy: 0.7166
Epoch 41/100
77/77 [=====] - 0s 2ms/step - loss: 0.6097 - accuracy: 0.7215
Epoch 42/100
77/77 [=====] - 0s 2ms/step - loss: 0.6137 - accuracy: 0.7117
Epoch 43/100
77/77 [=====] - 0s 2ms/step - loss: 0.6034 - accuracy: 0.7068
Epoch 44/100
77/77 [=====] - 0s 2ms/step - loss: 0.6035 - accuracy: 0.7085
Epoch 45/100
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77/77 [=====] - 0s 2ms/step - loss: 0.6018 - accuracy: 0.7166
Epoch 46/100
77/77 [=====] - 0s 2ms/step - loss: 0.6022 - accuracy: 0.6938
Epoch 47/100
77/77 [=====] - 0s 2ms/step - loss: 0.5990 - accuracy: 0.7166
Epoch 48/100
77/77 [=====] - 0s 1ms/step - loss: 0.5999 - accuracy: 0.6987
Epoch 49/100
77/77 [=====] - 0s 2ms/step - loss: 0.5977 - accuracy: 0.7085
Epoch 50/100
77/77 [=====] - 0s 1ms/step - loss: 0.5998 - accuracy: 0.7101
Epoch 51/100
77/77 [=====] - 0s 3ms/step - loss: 0.5986 - accuracy: 0.7085
Epoch 52/100
77/77 [=====] - 0s 2ms/step - loss: 0.5919 - accuracy: 0.7150
Epoch 53/100
77/77 [=====] - 0s 2ms/step - loss: 0.5962 - accuracy: 0.7117
Epoch 54/100
77/77 [=====] - 0s 2ms/step - loss: 0.5840 - accuracy: 0.7280
Epoch 55/100
77/77 [=====] - 0s 1ms/step - loss: 0.5941 - accuracy: 0.7166
Epoch 56/100
77/77 [=====] - 0s 2ms/step - loss: 0.5861 - accuracy: 0.7085
Epoch 57/100
77/77 [=====] - 0s 1ms/step - loss: 0.5865 - accuracy: 0.7117
Epoch 58/100
77/77 [=====] - 0s 2ms/step - loss: 0.5829 - accuracy: 0.7150
Epoch 59/100
77/77 [=====] - 0s 2ms/step - loss: 0.5785 - accuracy: 0.7166
Epoch 60/100
77/77 [=====] - 0s 2ms/step - loss: 0.5799 - accuracy: 0.7215
Epoch 61/100
77/77 [=====] - 0s 1ms/step - loss: 0.5775 - accuracy: 0.7443
Epoch 62/100
77/77 [=====] - 0s 2ms/step - loss: 0.5836 - accuracy: 0.7264
Epoch 63/100
77/77 [=====] - 0s 2ms/step - loss: 0.5882 - accuracy: 0.7101
Epoch 64/100
77/77 [=====] - 0s 3ms/step - loss: 0.5806 - accuracy: 0.7280
Epoch 65/100
77/77 [=====] - 0s 2ms/step - loss: 0.5811 - accuracy: 0.6938
Epoch 66/100
77/77 [=====] - 0s 2ms/step - loss: 0.5795 - accuracy: 0.7134
Epoch 67/100
77/77 [=====] - 0s 2ms/step - loss: 0.5801 - accuracy: 0.7362
Epoch 68/100
77/77 [=====] - 0s 2ms/step - loss: 0.5800 - accuracy: 0.7117
Epoch 69/100
77/77 [=====] - 0s 2ms/step - loss: 0.5675 - accuracy: 0.7280
Epoch 70/100
77/77 [=====] - 0s 2ms/step - loss: 0.5688 - accuracy: 0.7231
Epoch 71/100
77/77 [=====] - 0s 2ms/step - loss: 0.5720 - accuracy: 0.7166
Epoch 72/100
77/77 [=====] - 0s 3ms/step - loss: 0.5714 - accuracy: 0.7101
Epoch 73/100
77/77 [=====] - 0s 2ms/step - loss: 0.5649 - accuracy: 0.7280
Epoch 74/100
77/77 [=====] - 0s 2ms/step - loss: 0.5711 - accuracy: 0.7199
Epoch 75/100
77/77 [=====] - 0s 2ms/step - loss: 0.5744 - accuracy: 0.7166
Epoch 76/100
77/77 [=====] - 0s 2ms/step - loss: 0.5692 - accuracy: 0.7166
Epoch 77/100
77/77 [=====] - 0s 2ms/step - loss: 0.5680 - accuracy: 0.7264
Epoch 78/100
77/77 [=====] - 0s 3ms/step - loss: 0.5550 - accuracy: 0.7427
Epoch 79/100
77/77 [=====] - 0s 2ms/step - loss: 0.5639 - accuracy: 0.7345
Epoch 80/100
77/77 [=====] - 0s 2ms/step - loss: 0.5605 - accuracy: 0.7199
Epoch 81/100
77/77 [=====] - 0s 2ms/step - loss: 0.5645 - accuracy: 0.7329
Epoch 82/100
77/77 [=====] - 0s 2ms/step - loss: 0.5677 - accuracy: 0.7199
Epoch 83/100
77/77 [=====] - 0s 2ms/step - loss: 0.5586 - accuracy: 0.7296
Epoch 84/100
77/77 [=====] - 0s 2ms/step - loss: 0.5668 - accuracy: 0.7134
Epoch 85/100
77/77 [=====] - 0s 2ms/step - loss: 0.5572 - accuracy: 0.7264
Epoch 86/100

77/77 [=====] - 0s 3ms/step - loss: 0.5654 - accuracy: 0.7280
Epoch 87/100
77/77 [=====] - 0s 2ms/step - loss: 0.5702 - accuracy: 0.7215
Epoch 88/100
77/77 [=====] - 0s 2ms/step - loss: 0.5794 - accuracy: 0.7199
Epoch 89/100
77/77 [=====] - 0s 2ms/step - loss: 0.5657 - accuracy: 0.7003
Epoch 90/100
77/77 [=====] - 0s 2ms/step - loss: 0.5641 - accuracy: 0.7166
Epoch 91/100
77/77 [=====] - 0s 2ms/step - loss: 0.5596 - accuracy: 0.7345
Epoch 92/100
77/77 [=====] - 0s 2ms/step - loss: 0.5554 - accuracy: 0.7427
Epoch 93/100
77/77 [=====] - 0s 2ms/step - loss: 0.5641 - accuracy: 0.7134
Epoch 94/100
77/77 [=====] - 0s 2ms/step - loss: 0.5637 - accuracy: 0.7296
Epoch 95/100
77/77 [=====] - 0s 2ms/step - loss: 0.5585 - accuracy: 0.7329
Epoch 96/100
77/77 [=====] - 0s 2ms/step - loss: 0.5603 - accuracy: 0.7231
Epoch 97/100
77/77 [=====] - 0s 2ms/step - loss: 0.5637 - accuracy: 0.7182
Epoch 98/100
77/77 [=====] - 0s 2ms/step - loss: 0.5553 - accuracy: 0.7362
Epoch 99/100
77/77 [=====] - 0s 3ms/step - loss: 0.5688 - accuracy: 0.7150
Epoch 100/100
77/77 [=====] - 0s 2ms/step - loss: 0.5603 - accuracy: 0.7231
20/20 [=====] - 0s 2ms/step - loss: 0.6602 - accuracy: 0.6364
Epoch 1/100
77/77 [=====] - 1s 2ms/step - loss: 1.1212 - accuracy: 0.6238
Epoch 2/100
77/77 [=====] - 0s 2ms/step - loss: 0.7975 - accuracy: 0.6564
Epoch 3/100
77/77 [=====] - 0s 2ms/step - loss: 0.7631 - accuracy: 0.6482
Epoch 4/100
77/77 [=====] - 0s 2ms/step - loss: 0.7500 - accuracy: 0.6547
Epoch 5/100
77/77 [=====] - 0s 2ms/step - loss: 0.7304 - accuracy: 0.6710
Epoch 6/100
77/77 [=====] - 0s 2ms/step - loss: 0.7347 - accuracy: 0.6857
Epoch 7/100
77/77 [=====] - 0s 2ms/step - loss: 0.7234 - accuracy: 0.6938
Epoch 8/100
77/77 [=====] - 0s 1ms/step - loss: 0.7126 - accuracy: 0.7020
Epoch 9/100
77/77 [=====] - 0s 2ms/step - loss: 0.7219 - accuracy: 0.6889
Epoch 10/100
77/77 [=====] - 0s 2ms/step - loss: 0.7053 - accuracy: 0.7003
Epoch 11/100
77/77 [=====] - 0s 2ms/step - loss: 0.7095 - accuracy: 0.7003
Epoch 12/100
77/77 [=====] - 0s 3ms/step - loss: 0.7028 - accuracy: 0.7020
Epoch 13/100
77/77 [=====] - 0s 2ms/step - loss: 0.6968 - accuracy: 0.7020
Epoch 14/100
77/77 [=====] - 0s 2ms/step - loss: 0.6996 - accuracy: 0.7036
Epoch 15/100
77/77 [=====] - 0s 2ms/step - loss: 0.6974 - accuracy: 0.6954
Epoch 16/100
77/77 [=====] - 0s 1ms/step - loss: 0.6912 - accuracy: 0.6824
Epoch 17/100
77/77 [=====] - 0s 2ms/step - loss: 0.6831 - accuracy: 0.7101
Epoch 18/100
77/77 [=====] - 0s 1ms/step - loss: 0.6793 - accuracy: 0.7052
Epoch 19/100
77/77 [=====] - 0s 2ms/step - loss: 0.6817 - accuracy: 0.7052
Epoch 20/100
77/77 [=====] - 0s 2ms/step - loss: 0.6738 - accuracy: 0.7036
Epoch 21/100
77/77 [=====] - 0s 2ms/step - loss: 0.6681 - accuracy: 0.7166
Epoch 22/100
77/77 [=====] - 0s 1ms/step - loss: 0.6690 - accuracy: 0.7052
Epoch 23/100
77/77 [=====] - 0s 2ms/step - loss: 0.6648 - accuracy: 0.7020
Epoch 24/100
77/77 [=====] - 0s 1ms/step - loss: 0.6666 - accuracy: 0.7036
Epoch 25/100
77/77 [=====] - 0s 2ms/step - loss: 0.6612 - accuracy: 0.7182
Epoch 26/100
77/77 [=====] - 0s 2ms/step - loss: 0.6609 - accuracy: 0.7231

Epoch 27/100
77/77 [=====] - 0s 2ms/step - loss: 0.6578 - accuracy: 0.7215
Epoch 28/100
77/77 [=====] - 0s 2ms/step - loss: 0.6590 - accuracy: 0.7150
Epoch 29/100
77/77 [=====] - 0s 2ms/step - loss: 0.6447 - accuracy: 0.7068
Epoch 30/100
77/77 [=====] - 0s 2ms/step - loss: 0.6475 - accuracy: 0.7248
Epoch 31/100
77/77 [=====] - 0s 2ms/step - loss: 0.6542 - accuracy: 0.7052
Epoch 32/100
77/77 [=====] - 0s 2ms/step - loss: 0.6474 - accuracy: 0.7117
Epoch 33/100
77/77 [=====] - 0s 2ms/step - loss: 0.6533 - accuracy: 0.7068
Epoch 34/100
77/77 [=====] - 0s 2ms/step - loss: 0.6435 - accuracy: 0.7052
Epoch 35/100
77/77 [=====] - 0s 2ms/step - loss: 0.6415 - accuracy: 0.7182
Epoch 36/100
77/77 [=====] - 0s 2ms/step - loss: 0.6312 - accuracy: 0.7199
Epoch 37/100
77/77 [=====] - 0s 2ms/step - loss: 0.6386 - accuracy: 0.7036
Epoch 38/100
77/77 [=====] - 0s 2ms/step - loss: 0.6446 - accuracy: 0.6987
Epoch 39/100
77/77 [=====] - 0s 3ms/step - loss: 0.6328 - accuracy: 0.7280
Epoch 40/100
77/77 [=====] - 0s 3ms/step - loss: 0.6364 - accuracy: 0.7068
Epoch 41/100
77/77 [=====] - 0s 2ms/step - loss: 0.6223 - accuracy: 0.7231
Epoch 42/100
77/77 [=====] - 0s 2ms/step - loss: 0.6303 - accuracy: 0.7101
Epoch 43/100
77/77 [=====] - 0s 1ms/step - loss: 0.6358 - accuracy: 0.7117
Epoch 44/100
77/77 [=====] - 0s 2ms/step - loss: 0.6378 - accuracy: 0.6873
Epoch 45/100
77/77 [=====] - 0s 2ms/step - loss: 0.6305 - accuracy: 0.7199
Epoch 46/100
77/77 [=====] - 0s 2ms/step - loss: 0.6237 - accuracy: 0.7085
Epoch 47/100
77/77 [=====] - 0s 2ms/step - loss: 0.6265 - accuracy: 0.7085
Epoch 48/100
77/77 [=====] - 0s 2ms/step - loss: 0.6238 - accuracy: 0.7068
Epoch 49/100
77/77 [=====] - 0s 2ms/step - loss: 0.6182 - accuracy: 0.7020
Epoch 50/100
77/77 [=====] - 0s 2ms/step - loss: 0.6201 - accuracy: 0.7134
Epoch 51/100
77/77 [=====] - 0s 2ms/step - loss: 0.6139 - accuracy: 0.7052
Epoch 52/100
77/77 [=====] - 0s 3ms/step - loss: 0.6192 - accuracy: 0.7036
Epoch 53/100
77/77 [=====] - 0s 3ms/step - loss: 0.6161 - accuracy: 0.7166
Epoch 54/100
77/77 [=====] - 0s 2ms/step - loss: 0.6124 - accuracy: 0.7134
Epoch 55/100
77/77 [=====] - 0s 2ms/step - loss: 0.6143 - accuracy: 0.6906
Epoch 56/100
77/77 [=====] - 0s 2ms/step - loss: 0.6168 - accuracy: 0.7150
Epoch 57/100
77/77 [=====] - 0s 2ms/step - loss: 0.6109 - accuracy: 0.7182
Epoch 58/100
77/77 [=====] - 0s 2ms/step - loss: 0.6070 - accuracy: 0.7345
Epoch 59/100
77/77 [=====] - 0s 2ms/step - loss: 0.6040 - accuracy: 0.7296
Epoch 60/100
77/77 [=====] - 0s 2ms/step - loss: 0.6029 - accuracy: 0.6987
Epoch 61/100
77/77 [=====] - 0s 2ms/step - loss: 0.6042 - accuracy: 0.7264
Epoch 62/100
77/77 [=====] - 0s 2ms/step - loss: 0.6125 - accuracy: 0.7264
Epoch 63/100
77/77 [=====] - 0s 1ms/step - loss: 0.6080 - accuracy: 0.7215
Epoch 64/100
77/77 [=====] - 0s 3ms/step - loss: 0.6028 - accuracy: 0.7394
Epoch 65/100
77/77 [=====] - 0s 4ms/step - loss: 0.5966 - accuracy: 0.7345
Epoch 66/100
77/77 [=====] - 0s 2ms/step - loss: 0.6070 - accuracy: 0.7085
Epoch 67/100
77/77 [=====] - 0s 2ms/step - loss: 0.6059 - accuracy: 0.7182

Epoch 68/100
77/77 [=====] - 0s 2ms/step - loss: 0.6102 - accuracy: 0.7085
Epoch 69/100
77/77 [=====] - 0s 2ms/step - loss: 0.6089 - accuracy: 0.7231
Epoch 70/100
77/77 [=====] - 0s 2ms/step - loss: 0.6075 - accuracy: 0.7068
Epoch 71/100
77/77 [=====] - 0s 2ms/step - loss: 0.6025 - accuracy: 0.7182
Epoch 72/100
77/77 [=====] - 0s 3ms/step - loss: 0.5977 - accuracy: 0.6922
Epoch 73/100
77/77 [=====] - 0s 3ms/step - loss: 0.6274 - accuracy: 0.7085
Epoch 74/100
77/77 [=====] - 0s 3ms/step - loss: 0.6107 - accuracy: 0.6857
Epoch 75/100
77/77 [=====] - 0s 2ms/step - loss: 0.6025 - accuracy: 0.6971
Epoch 76/100
77/77 [=====] - 0s 3ms/step - loss: 0.5890 - accuracy: 0.7215
Epoch 77/100
77/77 [=====] - 0s 3ms/step - loss: 0.5977 - accuracy: 0.7182
Epoch 78/100
77/77 [=====] - 0s 2ms/step - loss: 0.5921 - accuracy: 0.7101
Epoch 79/100
77/77 [=====] - 0s 2ms/step - loss: 0.5958 - accuracy: 0.7166
Epoch 80/100
77/77 [=====] - 0s 2ms/step - loss: 0.5950 - accuracy: 0.7036
Epoch 81/100
77/77 [=====] - 0s 2ms/step - loss: 0.5852 - accuracy: 0.7199
Epoch 82/100
77/77 [=====] - 0s 2ms/step - loss: 0.5949 - accuracy: 0.7085
Epoch 83/100
77/77 [=====] - 0s 2ms/step - loss: 0.5854 - accuracy: 0.7182
Epoch 84/100
77/77 [=====] - 0s 2ms/step - loss: 0.5920 - accuracy: 0.7296
Epoch 85/100
77/77 [=====] - 0s 2ms/step - loss: 0.5938 - accuracy: 0.7117
Epoch 86/100
77/77 [=====] - 0s 1ms/step - loss: 0.5939 - accuracy: 0.7215
Epoch 87/100
77/77 [=====] - 0s 2ms/step - loss: 0.5826 - accuracy: 0.7427
Epoch 88/100
77/77 [=====] - 0s 2ms/step - loss: 0.5939 - accuracy: 0.7150
Epoch 89/100
77/77 [=====] - 0s 2ms/step - loss: 0.5857 - accuracy: 0.7264
Epoch 90/100
77/77 [=====] - 0s 4ms/step - loss: 0.5835 - accuracy: 0.7329
Epoch 91/100
77/77 [=====] - 0s 3ms/step - loss: 0.5903 - accuracy: 0.7117
Epoch 92/100
77/77 [=====] - 0s 2ms/step - loss: 0.5824 - accuracy: 0.6938
Epoch 93/100
77/77 [=====] - 0s 2ms/step - loss: 0.5902 - accuracy: 0.7068
Epoch 94/100
77/77 [=====] - 0s 2ms/step - loss: 0.5845 - accuracy: 0.7459
Epoch 95/100
77/77 [=====] - 0s 3ms/step - loss: 0.5906 - accuracy: 0.7101
Epoch 96/100
77/77 [=====] - 0s 2ms/step - loss: 0.5797 - accuracy: 0.7362
Epoch 97/100
77/77 [=====] - 0s 2ms/step - loss: 0.5836 - accuracy: 0.7052
Epoch 98/100
77/77 [=====] - 0s 3ms/step - loss: 0.5760 - accuracy: 0.7410
Epoch 99/100
77/77 [=====] - 0s 1ms/step - loss: 0.5882 - accuracy: 0.7248
Epoch 100/100
77/77 [=====] - 0s 2ms/step - loss: 0.5889 - accuracy: 0.7182
20/20 [=====] - 0s 1ms/step - loss: 0.6092 - accuracy: 0.7078
Epoch 1/100
77/77 [=====] - 1s 3ms/step - loss: 1.7423 - accuracy: 0.6016
Epoch 2/100
77/77 [=====] - 0s 2ms/step - loss: 0.8304 - accuracy: 0.6358
Epoch 3/100
77/77 [=====] - 0s 2ms/step - loss: 0.8167 - accuracy: 0.6325
Epoch 4/100
77/77 [=====] - 0s 1ms/step - loss: 0.8080 - accuracy: 0.6341
Epoch 5/100
77/77 [=====] - 0s 2ms/step - loss: 0.7987 - accuracy: 0.6341
Epoch 6/100
77/77 [=====] - 0s 2ms/step - loss: 0.7904 - accuracy: 0.6488
Epoch 7/100
77/77 [=====] - 0s 2ms/step - loss: 0.7871 - accuracy: 0.6276
Epoch 8/100

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77/77 [=====] - 0s 2ms/step - loss: 0.7809 - accuracy: 0.6358
Epoch 9/100
77/77 [=====] - 0s 2ms/step - loss: 0.7729 - accuracy: 0.6455
Epoch 10/100
77/77 [=====] - 0s 4ms/step - loss: 0.7679 - accuracy: 0.6472
Epoch 11/100
77/77 [=====] - 0s 3ms/step - loss: 0.7623 - accuracy: 0.6439
Epoch 12/100
77/77 [=====] - 0s 2ms/step - loss: 0.7560 - accuracy: 0.6618
Epoch 13/100
77/77 [=====] - 0s 3ms/step - loss: 0.7526 - accuracy: 0.6504
Epoch 14/100
77/77 [=====] - 0s 3ms/step - loss: 0.7487 - accuracy: 0.6488
Epoch 15/100
77/77 [=====] - 0s 2ms/step - loss: 0.7449 - accuracy: 0.6439
Epoch 16/100
77/77 [=====] - 0s 3ms/step - loss: 0.7449 - accuracy: 0.6407
Epoch 17/100
77/77 [=====] - 0s 2ms/step - loss: 0.7366 - accuracy: 0.6553
Epoch 18/100
77/77 [=====] - 0s 2ms/step - loss: 0.7323 - accuracy: 0.6732
Epoch 19/100
77/77 [=====] - 0s 3ms/step - loss: 0.7299 - accuracy: 0.6520
Epoch 20/100
77/77 [=====] - 0s 2ms/step - loss: 0.7263 - accuracy: 0.6520
Epoch 21/100
77/77 [=====] - 0s 2ms/step - loss: 0.7238 - accuracy: 0.6520
Epoch 22/100
77/77 [=====] - 0s 3ms/step - loss: 0.7214 - accuracy: 0.6683
Epoch 23/100
77/77 [=====] - 0s 2ms/step - loss: 0.7186 - accuracy: 0.6472
Epoch 24/100
77/77 [=====] - 0s 3ms/step - loss: 0.7123 - accuracy: 0.6537
Epoch 25/100
77/77 [=====] - 0s 3ms/step - loss: 0.7147 - accuracy: 0.6553
Epoch 26/100
77/77 [=====] - 0s 2ms/step - loss: 0.7118 - accuracy: 0.6520
Epoch 27/100
77/77 [=====] - 0s 2ms/step - loss: 0.7097 - accuracy: 0.6569
Epoch 28/100
77/77 [=====] - 0s 1ms/step - loss: 0.7098 - accuracy: 0.6537
Epoch 29/100
77/77 [=====] - 0s 2ms/step - loss: 0.7039 - accuracy: 0.6618
Epoch 30/100
77/77 [=====] - 0s 2ms/step - loss: 0.6997 - accuracy: 0.6699
Epoch 31/100
77/77 [=====] - 0s 2ms/step - loss: 0.7000 - accuracy: 0.6585
Epoch 32/100
77/77 [=====] - 0s 2ms/step - loss: 0.7000 - accuracy: 0.6650
Epoch 33/100
77/77 [=====] - 0s 2ms/step - loss: 0.6955 - accuracy: 0.6602
Epoch 34/100
77/77 [=====] - 0s 2ms/step - loss: 0.6924 - accuracy: 0.6634
Epoch 35/100
77/77 [=====] - 0s 2ms/step - loss: 0.6905 - accuracy: 0.6585
Epoch 36/100
77/77 [=====] - 0s 1ms/step - loss: 0.6893 - accuracy: 0.6520
Epoch 37/100
77/77 [=====] - 0s 2ms/step - loss: 0.6892 - accuracy: 0.6715
Epoch 38/100
77/77 [=====] - 0s 2ms/step - loss: 0.6886 - accuracy: 0.6504
Epoch 39/100
77/77 [=====] - 0s 2ms/step - loss: 0.6868 - accuracy: 0.6602
Epoch 40/100
77/77 [=====] - 0s 2ms/step - loss: 0.6833 - accuracy: 0.6634
Epoch 41/100
77/77 [=====] - 0s 2ms/step - loss: 0.6884 - accuracy: 0.6569
Epoch 42/100
77/77 [=====] - 0s 2ms/step - loss: 0.6811 - accuracy: 0.6650
Epoch 43/100
77/77 [=====] - 0s 2ms/step - loss: 0.6755 - accuracy: 0.6732
Epoch 44/100
77/77 [=====] - 0s 2ms/step - loss: 0.6816 - accuracy: 0.6602
Epoch 45/100
77/77 [=====] - 0s 4ms/step - loss: 0.6715 - accuracy: 0.6585
Epoch 46/100
77/77 [=====] - 0s 3ms/step - loss: 0.6651 - accuracy: 0.6699
Epoch 47/100
77/77 [=====] - 0s 3ms/step - loss: 0.6648 - accuracy: 0.6667
Epoch 48/100
77/77 [=====] - 0s 2ms/step - loss: 0.6559 - accuracy: 0.6553
Epoch 49/100
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77/77 [=====] - 0s 3ms/step - loss: 0.6505 - accuracy: 0.6650
Epoch 50/100
77/77 [=====] - 0s 2ms/step - loss: 0.6538 - accuracy: 0.6715
Epoch 51/100
77/77 [=====] - 0s 2ms/step - loss: 0.6583 - accuracy: 0.6602
Epoch 52/100
77/77 [=====] - 0s 2ms/step - loss: 0.6475 - accuracy: 0.6846
Epoch 53/100
77/77 [=====] - 0s 2ms/step - loss: 0.6483 - accuracy: 0.6797
Epoch 54/100
77/77 [=====] - 0s 2ms/step - loss: 0.6432 - accuracy: 0.6683
Epoch 55/100
77/77 [=====] - 0s 1ms/step - loss: 0.6435 - accuracy: 0.6634
Epoch 56/100
77/77 [=====] - 0s 2ms/step - loss: 0.6487 - accuracy: 0.6602
Epoch 57/100
77/77 [=====] - 0s 1ms/step - loss: 0.6466 - accuracy: 0.6732
Epoch 58/100
77/77 [=====] - 0s 2ms/step - loss: 0.6399 - accuracy: 0.6764
Epoch 59/100
77/77 [=====] - 0s 2ms/step - loss: 0.6366 - accuracy: 0.6618
Epoch 60/100
77/77 [=====] - 0s 2ms/step - loss: 0.6306 - accuracy: 0.6943
Epoch 61/100
77/77 [=====] - 0s 3ms/step - loss: 0.6388 - accuracy: 0.6862
Epoch 62/100
77/77 [=====] - 0s 2ms/step - loss: 0.6274 - accuracy: 0.6911
Epoch 63/100
77/77 [=====] - 0s 2ms/step - loss: 0.6290 - accuracy: 0.6846
Epoch 64/100
77/77 [=====] - 0s 2ms/step - loss: 0.6297 - accuracy: 0.6732
Epoch 65/100
77/77 [=====] - 0s 2ms/step - loss: 0.6263 - accuracy: 0.6992
Epoch 66/100
77/77 [=====] - 0s 2ms/step - loss: 0.6232 - accuracy: 0.6976
Epoch 67/100
77/77 [=====] - 0s 2ms/step - loss: 0.6236 - accuracy: 0.6878
Epoch 68/100
77/77 [=====] - 0s 2ms/step - loss: 0.6186 - accuracy: 0.7041
Epoch 69/100
77/77 [=====] - 0s 2ms/step - loss: 0.6153 - accuracy: 0.6829
Epoch 70/100
77/77 [=====] - 0s 2ms/step - loss: 0.6180 - accuracy: 0.6829
Epoch 71/100
77/77 [=====] - 0s 2ms/step - loss: 0.6147 - accuracy: 0.6894
Epoch 72/100
77/77 [=====] - 0s 3ms/step - loss: 0.6158 - accuracy: 0.6943
Epoch 73/100
77/77 [=====] - 0s 2ms/step - loss: 0.6194 - accuracy: 0.6959
Epoch 74/100
77/77 [=====] - 0s 2ms/step - loss: 0.6071 - accuracy: 0.6911
Epoch 75/100
77/77 [=====] - 0s 3ms/step - loss: 0.6208 - accuracy: 0.6748
Epoch 76/100
77/77 [=====] - 0s 3ms/step - loss: 0.6140 - accuracy: 0.7073
Epoch 77/100
77/77 [=====] - 0s 3ms/step - loss: 0.6135 - accuracy: 0.6862
Epoch 78/100
77/77 [=====] - 0s 3ms/step - loss: 0.6094 - accuracy: 0.7008
Epoch 79/100
77/77 [=====] - 0s 3ms/step - loss: 0.6023 - accuracy: 0.6992
Epoch 80/100
77/77 [=====] - 0s 3ms/step - loss: 0.6050 - accuracy: 0.7089
Epoch 81/100
77/77 [=====] - 0s 2ms/step - loss: 0.6108 - accuracy: 0.6992
Epoch 82/100
77/77 [=====] - 0s 2ms/step - loss: 0.6136 - accuracy: 0.6846
Epoch 83/100
77/77 [=====] - 0s 2ms/step - loss: 0.5997 - accuracy: 0.6943
Epoch 84/100
77/77 [=====] - 0s 3ms/step - loss: 0.6087 - accuracy: 0.6780
Epoch 85/100
77/77 [=====] - 0s 2ms/step - loss: 0.6046 - accuracy: 0.6959
Epoch 86/100
77/77 [=====] - 0s 2ms/step - loss: 0.6029 - accuracy: 0.6959
Epoch 87/100
77/77 [=====] - 0s 2ms/step - loss: 0.6069 - accuracy: 0.6764
Epoch 88/100
77/77 [=====] - 0s 2ms/step - loss: 0.6078 - accuracy: 0.6927
Epoch 89/100
77/77 [=====] - 0s 1ms/step - loss: 0.6306 - accuracy: 0.6618
Epoch 90/100

77/77	[=====]	- 0s	3ms/step	- loss: 0.6028	- accuracy: 0.6764
Epoch 91/100					
77/77	[=====]	- 0s	3ms/step	- loss: 0.6075	- accuracy: 0.6911
Epoch 92/100					
77/77	[=====]	- 0s	2ms/step	- loss: 0.6034	- accuracy: 0.6894
Epoch 93/100					
77/77	[=====]	- 0s	2ms/step	- loss: 0.5994	- accuracy: 0.7008
Epoch 94/100					
77/77	[=====]	- 0s	2ms/step	- loss: 0.6009	- accuracy: 0.7041
Epoch 95/100					
77/77	[=====]	- 0s	1ms/step	- loss: 0.5896	- accuracy: 0.7203
Epoch 96/100					
77/77	[=====]	- 0s	2ms/step	- loss: 0.6029	- accuracy: 0.6927
Epoch 97/100					
77/77	[=====]	- 0s	1ms/step	- loss: 0.6071	- accuracy: 0.6797
Epoch 98/100					
77/77	[=====]	- 0s	2ms/step	- loss: 0.5974	- accuracy: 0.6976
Epoch 99/100					
77/77	[=====]	- 0s	2ms/step	- loss: 0.6028	- accuracy: 0.6911
Epoch 100/100					
77/77	[=====]	- 0s	2ms/step	- loss: 0.6029	- accuracy: 0.6992
20/20	[=====]	- 0s	1ms/step	- loss: 0.5575	- accuracy: 0.7582
Epoch 1/100					
77/77	[=====]	- 0s	2ms/step	- loss: 1.2618	- accuracy: 0.6341
Epoch 2/100					
77/77	[=====]	- 0s	1ms/step	- loss: 0.7972	- accuracy: 0.6650
Epoch 3/100					
77/77	[=====]	- 0s	2ms/step	- loss: 0.7802	- accuracy: 0.6748
Epoch 4/100					
77/77	[=====]	- 0s	1ms/step	- loss: 0.7729	- accuracy: 0.6634
Epoch 5/100					
77/77	[=====]	- 0s	2ms/step	- loss: 0.7593	- accuracy: 0.6748
Epoch 6/100					
77/77	[=====]	- 0s	1ms/step	- loss: 0.7548	- accuracy: 0.6748
Epoch 7/100					
77/77	[=====]	- 0s	2ms/step	- loss: 0.7472	- accuracy: 0.6780
Epoch 8/100					
77/77	[=====]	- 0s	1ms/step	- loss: 0.7454	- accuracy: 0.6699
Epoch 9/100					
77/77	[=====]	- 0s	3ms/step	- loss: 0.7411	- accuracy: 0.6829
Epoch 10/100					
77/77	[=====]	- 0s	2ms/step	- loss: 0.7358	- accuracy: 0.6748
Epoch 11/100					
77/77	[=====]	- 0s	2ms/step	- loss: 0.7280	- accuracy: 0.6764
Epoch 12/100					
77/77	[=====]	- 0s	2ms/step	- loss: 0.7254	- accuracy: 0.6732
Epoch 13/100					
77/77	[=====]	- 0s	2ms/step	- loss: 0.7262	- accuracy: 0.6715
Epoch 14/100					
77/77	[=====]	- 0s	2ms/step	- loss: 0.7167	- accuracy: 0.6667
Epoch 15/100					
77/77	[=====]	- 0s	3ms/step	- loss: 0.7169	- accuracy: 0.6813
Epoch 16/100					
77/77	[=====]	- 0s	3ms/step	- loss: 0.7143	- accuracy: 0.6846
Epoch 17/100					
77/77	[=====]	- 0s	2ms/step	- loss: 0.7095	- accuracy: 0.6829
Epoch 18/100					
77/77	[=====]	- 0s	4ms/step	- loss: 0.7043	- accuracy: 0.6862
Epoch 19/100					
77/77	[=====]	- 0s	4ms/step	- loss: 0.7042	- accuracy: 0.6797
Epoch 20/100					
77/77	[=====]	- 0s	2ms/step	- loss: 0.7038	- accuracy: 0.6715
Epoch 21/100					
77/77	[=====]	- 0s	2ms/step	- loss: 0.6942	- accuracy: 0.6878
Epoch 22/100					
77/77	[=====]	- 0s	2ms/step	- loss: 0.6990	- accuracy: 0.6829
Epoch 23/100					
77/77	[=====]	- 0s	3ms/step	- loss: 0.6999	- accuracy: 0.6780
Epoch 24/100					
77/77	[=====]	- 0s	2ms/step	- loss: 0.6912	- accuracy: 0.6764
Epoch 25/100					
77/77	[=====]	- 0s	2ms/step	- loss: 0.6938	- accuracy: 0.6732
Epoch 26/100					
77/77	[=====]	- 0s	2ms/step	- loss: 0.6873	- accuracy: 0.6683
Epoch 27/100					
77/77	[=====]	- 0s	2ms/step	- loss: 0.6921	- accuracy: 0.6813
Epoch 28/100					
77/77	[=====]	- 0s	2ms/step	- loss: 0.6848	- accuracy: 0.6829
Epoch 29/100					
77/77	[=====]	- 0s	3ms/step	- loss: 0.6825	- accuracy: 0.6797
Epoch 30/100					
77/77	[=====]	- 0s	3ms/step	- loss: 0.6844	- accuracy: 0.6683

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Epoch 31/100
77/77 [=====] - 0s 3ms/step - loss: 0.6812 - accuracy: 0.6813
Epoch 32/100
77/77 [=====] - 0s 2ms/step - loss: 0.6758 - accuracy: 0.6748
Epoch 33/100
77/77 [=====] - 0s 2ms/step - loss: 0.6743 - accuracy: 0.6797
Epoch 34/100
77/77 [=====] - 0s 2ms/step - loss: 0.6771 - accuracy: 0.6797
Epoch 35/100
77/77 [=====] - 0s 3ms/step - loss: 0.6735 - accuracy: 0.6699
Epoch 36/100
77/77 [=====] - 0s 3ms/step - loss: 0.6746 - accuracy: 0.6780
Epoch 37/100
77/77 [=====] - 0s 1ms/step - loss: 0.6713 - accuracy: 0.6715
Epoch 38/100
77/77 [=====] - 0s 2ms/step - loss: 0.6707 - accuracy: 0.6732
Epoch 39/100
77/77 [=====] - 0s 2ms/step - loss: 0.6660 - accuracy: 0.6862
Epoch 40/100
77/77 [=====] - 0s 2ms/step - loss: 0.6661 - accuracy: 0.6797
Epoch 41/100
77/77 [=====] - 0s 1ms/step - loss: 0.6640 - accuracy: 0.6748
Epoch 42/100
77/77 [=====] - 0s 2ms/step - loss: 0.6651 - accuracy: 0.6813
Epoch 43/100
77/77 [=====] - 0s 2ms/step - loss: 0.6621 - accuracy: 0.6780
Epoch 44/100
77/77 [=====] - 0s 2ms/step - loss: 0.6595 - accuracy: 0.6878
Epoch 45/100
77/77 [=====] - 0s 2ms/step - loss: 0.6596 - accuracy: 0.6780
Epoch 46/100
77/77 [=====] - 0s 3ms/step - loss: 0.6595 - accuracy: 0.6911
Epoch 47/100
77/77 [=====] - 0s 2ms/step - loss: 0.6585 - accuracy: 0.6846
Epoch 48/100
77/77 [=====] - 0s 3ms/step - loss: 0.6644 - accuracy: 0.6748
Epoch 49/100
77/77 [=====] - 0s 2ms/step - loss: 0.6591 - accuracy: 0.6650
Epoch 50/100
77/77 [=====] - 0s 2ms/step - loss: 0.6556 - accuracy: 0.6829
Epoch 51/100
77/77 [=====] - 0s 2ms/step - loss: 0.6532 - accuracy: 0.6829
Epoch 52/100
77/77 [=====] - 0s 1ms/step - loss: 0.6548 - accuracy: 0.6797
Epoch 53/100
77/77 [=====] - 0s 2ms/step - loss: 0.6527 - accuracy: 0.6780
Epoch 54/100
77/77 [=====] - 0s 2ms/step - loss: 0.6546 - accuracy: 0.6780
Epoch 55/100
77/77 [=====] - 0s 1ms/step - loss: 0.6482 - accuracy: 0.6748
Epoch 56/100
77/77 [=====] - 0s 2ms/step - loss: 0.6521 - accuracy: 0.6748
Epoch 57/100
77/77 [=====] - 0s 1ms/step - loss: 0.6530 - accuracy: 0.6732
Epoch 58/100
77/77 [=====] - 0s 3ms/step - loss: 0.6500 - accuracy: 0.6699
Epoch 59/100
77/77 [=====] - 0s 3ms/step - loss: 0.6456 - accuracy: 0.6715
Epoch 60/100
77/77 [=====] - 0s 2ms/step - loss: 0.6464 - accuracy: 0.6780
Epoch 61/100
77/77 [=====] - 0s 2ms/step - loss: 0.6448 - accuracy: 0.6927
Epoch 62/100
77/77 [=====] - 0s 3ms/step - loss: 0.6432 - accuracy: 0.6846
Epoch 63/100
77/77 [=====] - 0s 2ms/step - loss: 0.6470 - accuracy: 0.6846
Epoch 64/100
77/77 [=====] - 0s 2ms/step - loss: 0.6420 - accuracy: 0.6878
Epoch 65/100
77/77 [=====] - 0s 2ms/step - loss: 0.6412 - accuracy: 0.6846
Epoch 66/100
77/77 [=====] - 0s 2ms/step - loss: 0.6461 - accuracy: 0.6829
Epoch 67/100
77/77 [=====] - 0s 2ms/step - loss: 0.6439 - accuracy: 0.6862
Epoch 68/100
77/77 [=====] - 0s 2ms/step - loss: 0.6412 - accuracy: 0.6748
Epoch 69/100
77/77 [=====] - 0s 2ms/step - loss: 0.6427 - accuracy: 0.6780
Epoch 70/100
77/77 [=====] - 0s 2ms/step - loss: 0.6408 - accuracy: 0.6846
Epoch 71/100
77/77 [=====] - 0s 2ms/step - loss: 0.6401 - accuracy: 0.6846
```

Epoch 72/100
77/77 [=====] - 0s 2ms/step - loss: 0.6432 - accuracy: 0.6846
Epoch 73/100
77/77 [=====] - 0s 3ms/step - loss: 0.6343 - accuracy: 0.6927
Epoch 74/100
77/77 [=====] - 0s 3ms/step - loss: 0.6412 - accuracy: 0.6748
Epoch 75/100
77/77 [=====] - 0s 3ms/step - loss: 0.6373 - accuracy: 0.6780
Epoch 76/100
77/77 [=====] - 0s 2ms/step - loss: 0.6464 - accuracy: 0.6650
Epoch 77/100
77/77 [=====] - 0s 3ms/step - loss: 0.6387 - accuracy: 0.6846
Epoch 78/100
77/77 [=====] - 0s 2ms/step - loss: 0.6370 - accuracy: 0.6732
Epoch 79/100
77/77 [=====] - 0s 3ms/step - loss: 0.6357 - accuracy: 0.6862
Epoch 80/100
77/77 [=====] - 0s 3ms/step - loss: 0.6321 - accuracy: 0.6862
Epoch 81/100
77/77 [=====] - 0s 4ms/step - loss: 0.6360 - accuracy: 0.6813
Epoch 82/100
77/77 [=====] - 0s 3ms/step - loss: 0.6290 - accuracy: 0.6829
Epoch 83/100
77/77 [=====] - 0s 3ms/step - loss: 0.6349 - accuracy: 0.6764
Epoch 84/100
77/77 [=====] - 0s 3ms/step - loss: 0.6326 - accuracy: 0.6894
Epoch 85/100
77/77 [=====] - 0s 3ms/step - loss: 0.6303 - accuracy: 0.6894
Epoch 86/100
77/77 [=====] - 0s 3ms/step - loss: 0.6362 - accuracy: 0.6748
Epoch 87/100
77/77 [=====] - 0s 3ms/step - loss: 0.6358 - accuracy: 0.6813
Epoch 88/100
77/77 [=====] - 0s 2ms/step - loss: 0.6307 - accuracy: 0.6797
Epoch 89/100
77/77 [=====] - 0s 2ms/step - loss: 0.6332 - accuracy: 0.6846
Epoch 90/100
77/77 [=====] - 0s 2ms/step - loss: 0.6323 - accuracy: 0.6829
Epoch 91/100
77/77 [=====] - 0s 3ms/step - loss: 0.6323 - accuracy: 0.6764
Epoch 92/100
77/77 [=====] - 0s 2ms/step - loss: 0.6318 - accuracy: 0.6764
Epoch 93/100
77/77 [=====] - 0s 1ms/step - loss: 0.6294 - accuracy: 0.6764
Epoch 94/100
77/77 [=====] - 0s 2ms/step - loss: 0.6351 - accuracy: 0.6748
Epoch 95/100
77/77 [=====] - 0s 1ms/step - loss: 0.6234 - accuracy: 0.6959
Epoch 96/100
77/77 [=====] - 0s 2ms/step - loss: 0.6335 - accuracy: 0.6748
Epoch 97/100
77/77 [=====] - 0s 1ms/step - loss: 0.6282 - accuracy: 0.6846
Epoch 98/100
77/77 [=====] - 0s 2ms/step - loss: 0.6342 - accuracy: 0.6732
Epoch 99/100
77/77 [=====] - 0s 1ms/step - loss: 0.6310 - accuracy: 0.6894
Epoch 100/100
77/77 [=====] - 0s 2ms/step - loss: 0.6252 - accuracy: 0.6911
20/20 [=====] - 0s 1ms/step - loss: 0.6573 - accuracy: 0.6536
Epoch 1/100
77/77 [=====] - 0s 2ms/step - loss: 2.3591 - accuracy: 0.5961
Epoch 2/100
77/77 [=====] - 0s 2ms/step - loss: 1.7668 - accuracy: 0.6515
Epoch 3/100
77/77 [=====] - 0s 2ms/step - loss: 1.4674 - accuracy: 0.6515
Epoch 4/100
77/77 [=====] - 0s 2ms/step - loss: 1.2483 - accuracy: 0.6515
Epoch 5/100
77/77 [=====] - 0s 2ms/step - loss: 1.0879 - accuracy: 0.6515
Epoch 6/100
77/77 [=====] - 0s 2ms/step - loss: 0.9700 - accuracy: 0.6515
Epoch 7/100
77/77 [=====] - 0s 2ms/step - loss: 0.8834 - accuracy: 0.6515
Epoch 8/100
77/77 [=====] - 0s 2ms/step - loss: 0.8196 - accuracy: 0.6515
Epoch 9/100
77/77 [=====] - 0s 2ms/step - loss: 0.7732 - accuracy: 0.6515
Epoch 10/100
77/77 [=====] - 0s 2ms/step - loss: 0.7399 - accuracy: 0.6515
Epoch 11/100
77/77 [=====] - 0s 2ms/step - loss: 0.7130 - accuracy: 0.6482
Epoch 12/100

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77/77 [=====] - 0s 2ms/step - loss: 0.6924 - accuracy: 0.6515
Epoch 13/100
77/77 [=====] - 0s 2ms/step - loss: 0.6772 - accuracy: 0.6580
Epoch 14/100
77/77 [=====] - 0s 1ms/step - loss: 0.6665 - accuracy: 0.6612
Epoch 15/100
77/77 [=====] - 0s 2ms/step - loss: 0.6586 - accuracy: 0.6433
Epoch 16/100
77/77 [=====] - 0s 1ms/step - loss: 0.6462 - accuracy: 0.6694
Epoch 17/100
77/77 [=====] - 0s 2ms/step - loss: 0.6378 - accuracy: 0.6889
Epoch 18/100
77/77 [=====] - 0s 1ms/step - loss: 0.6337 - accuracy: 0.6840
Epoch 19/100
77/77 [=====] - 0s 2ms/step - loss: 0.6311 - accuracy: 0.6889
Epoch 20/100
77/77 [=====] - 0s 1ms/step - loss: 0.6335 - accuracy: 0.6726
Epoch 21/100
77/77 [=====] - 0s 2ms/step - loss: 0.6229 - accuracy: 0.6906
Epoch 22/100
77/77 [=====] - 0s 1ms/step - loss: 0.6217 - accuracy: 0.6873
Epoch 23/100
77/77 [=====] - 0s 2ms/step - loss: 0.6221 - accuracy: 0.7003
Epoch 24/100
77/77 [=====] - 0s 2ms/step - loss: 0.6259 - accuracy: 0.6840
Epoch 25/100
77/77 [=====] - 0s 2ms/step - loss: 0.6180 - accuracy: 0.6987
Epoch 26/100
77/77 [=====] - 0s 3ms/step - loss: 0.6162 - accuracy: 0.7036
Epoch 27/100
77/77 [=====] - 0s 3ms/step - loss: 0.6145 - accuracy: 0.6987
Epoch 28/100
77/77 [=====] - 0s 2ms/step - loss: 0.6210 - accuracy: 0.7052
Epoch 29/100
77/77 [=====] - 0s 2ms/step - loss: 0.6168 - accuracy: 0.6971
Epoch 30/100
77/77 [=====] - 0s 2ms/step - loss: 0.6130 - accuracy: 0.6873
Epoch 31/100
77/77 [=====] - 0s 2ms/step - loss: 0.6117 - accuracy: 0.7101
Epoch 32/100
77/77 [=====] - 0s 2ms/step - loss: 0.6176 - accuracy: 0.6873
Epoch 33/100
77/77 [=====] - 0s 2ms/step - loss: 0.6151 - accuracy: 0.6873
Epoch 34/100
77/77 [=====] - 0s 2ms/step - loss: 0.6137 - accuracy: 0.6857
Epoch 35/100
77/77 [=====] - 0s 2ms/step - loss: 0.6143 - accuracy: 0.6971
Epoch 36/100
77/77 [=====] - 0s 2ms/step - loss: 0.6124 - accuracy: 0.6954
Epoch 37/100
77/77 [=====] - 0s 2ms/step - loss: 0.6162 - accuracy: 0.7101
Epoch 38/100
77/77 [=====] - 0s 2ms/step - loss: 0.6061 - accuracy: 0.6971
Epoch 39/100
77/77 [=====] - 0s 2ms/step - loss: 0.6139 - accuracy: 0.6938
Epoch 40/100
77/77 [=====] - 0s 2ms/step - loss: 0.6017 - accuracy: 0.7117
Epoch 41/100
77/77 [=====] - 0s 2ms/step - loss: 0.6080 - accuracy: 0.6971
Epoch 42/100
77/77 [=====] - 0s 2ms/step - loss: 0.6047 - accuracy: 0.6938
Epoch 43/100
77/77 [=====] - 0s 2ms/step - loss: 0.6172 - accuracy: 0.6987
Epoch 44/100
77/77 [=====] - 0s 2ms/step - loss: 0.6067 - accuracy: 0.7052
Epoch 45/100
77/77 [=====] - 0s 2ms/step - loss: 0.6119 - accuracy: 0.7068
Epoch 46/100
77/77 [=====] - 0s 3ms/step - loss: 0.6111 - accuracy: 0.7020
Epoch 47/100
77/77 [=====] - 0s 2ms/step - loss: 0.6036 - accuracy: 0.7068
Epoch 48/100
77/77 [=====] - 0s 1ms/step - loss: 0.6006 - accuracy: 0.6954
Epoch 49/100
77/77 [=====] - 0s 2ms/step - loss: 0.6012 - accuracy: 0.7020
Epoch 50/100
77/77 [=====] - 0s 2ms/step - loss: 0.6062 - accuracy: 0.6808
Epoch 51/100
77/77 [=====] - 0s 3ms/step - loss: 0.6093 - accuracy: 0.6922
Epoch 52/100
77/77 [=====] - 0s 3ms/step - loss: 0.6018 - accuracy: 0.7134
Epoch 53/100
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77/77 [=====] - 0s 1ms/step - loss: 0.6048 - accuracy: 0.6987
Epoch 54/100
77/77 [=====] - 0s 2ms/step - loss: 0.6061 - accuracy: 0.7003
Epoch 55/100
77/77 [=====] - 0s 2ms/step - loss: 0.6138 - accuracy: 0.6840
Epoch 56/100
77/77 [=====] - 0s 2ms/step - loss: 0.6055 - accuracy: 0.6938
Epoch 57/100
77/77 [=====] - 0s 2ms/step - loss: 0.6082 - accuracy: 0.6971
Epoch 58/100
77/77 [=====] - 0s 2ms/step - loss: 0.5965 - accuracy: 0.7085
Epoch 59/100
77/77 [=====] - 0s 2ms/step - loss: 0.5895 - accuracy: 0.7052
Epoch 60/100
77/77 [=====] - 0s 2ms/step - loss: 0.5977 - accuracy: 0.7036
Epoch 61/100
77/77 [=====] - 0s 2ms/step - loss: 0.6066 - accuracy: 0.7003
Epoch 62/100
77/77 [=====] - 0s 2ms/step - loss: 0.6017 - accuracy: 0.7003
Epoch 63/100
77/77 [=====] - 0s 2ms/step - loss: 0.5944 - accuracy: 0.7101
Epoch 64/100
77/77 [=====] - 0s 1ms/step - loss: 0.5978 - accuracy: 0.7003
Epoch 65/100
77/77 [=====] - 0s 2ms/step - loss: 0.6075 - accuracy: 0.7150
Epoch 66/100
77/77 [=====] - 0s 2ms/step - loss: 0.6002 - accuracy: 0.7117
Epoch 67/100
77/77 [=====] - 0s 2ms/step - loss: 0.6063 - accuracy: 0.6889
Epoch 68/100
77/77 [=====] - 0s 2ms/step - loss: 0.5984 - accuracy: 0.7052
Epoch 69/100
77/77 [=====] - 0s 1ms/step - loss: 0.6077 - accuracy: 0.7020
Epoch 70/100
77/77 [=====] - 0s 3ms/step - loss: 0.6058 - accuracy: 0.6824
Epoch 71/100
77/77 [=====] - 0s 3ms/step - loss: 0.6005 - accuracy: 0.7166
Epoch 72/100
77/77 [=====] - 0s 2ms/step - loss: 0.5947 - accuracy: 0.7003
Epoch 73/100
77/77 [=====] - 0s 2ms/step - loss: 0.5963 - accuracy: 0.7085
Epoch 74/100
77/77 [=====] - 0s 2ms/step - loss: 0.6059 - accuracy: 0.6808
Epoch 75/100
77/77 [=====] - 0s 3ms/step - loss: 0.6050 - accuracy: 0.7166
Epoch 76/100
77/77 [=====] - 0s 2ms/step - loss: 0.5970 - accuracy: 0.7134
Epoch 77/100
77/77 [=====] - 0s 3ms/step - loss: 0.6177 - accuracy: 0.6906
Epoch 78/100
77/77 [=====] - 0s 2ms/step - loss: 0.5967 - accuracy: 0.7166
Epoch 79/100
77/77 [=====] - 0s 3ms/step - loss: 0.5961 - accuracy: 0.7101
Epoch 80/100
77/77 [=====] - 0s 2ms/step - loss: 0.6053 - accuracy: 0.7052
Epoch 81/100
77/77 [=====] - 0s 2ms/step - loss: 0.5998 - accuracy: 0.7085
Epoch 82/100
77/77 [=====] - 0s 2ms/step - loss: 0.5983 - accuracy: 0.7215
Epoch 83/100
77/77 [=====] - 0s 2ms/step - loss: 0.5949 - accuracy: 0.7068
Epoch 84/100
77/77 [=====] - 0s 3ms/step - loss: 0.6059 - accuracy: 0.7101
Epoch 85/100
77/77 [=====] - 0s 3ms/step - loss: 0.5943 - accuracy: 0.7085
Epoch 86/100
77/77 [=====] - 0s 2ms/step - loss: 0.6065 - accuracy: 0.6987
Epoch 87/100
77/77 [=====] - 0s 2ms/step - loss: 0.5971 - accuracy: 0.7150
Epoch 88/100
77/77 [=====] - 0s 1ms/step - loss: 0.6012 - accuracy: 0.7068
Epoch 89/100
77/77 [=====] - 0s 2ms/step - loss: 0.5946 - accuracy: 0.7264
Epoch 90/100
77/77 [=====] - 0s 2ms/step - loss: 0.6148 - accuracy: 0.6873
Epoch 91/100
77/77 [=====] - 0s 2ms/step - loss: 0.5930 - accuracy: 0.7052
Epoch 92/100
77/77 [=====] - 0s 4ms/step - loss: 0.6011 - accuracy: 0.7020
Epoch 93/100
77/77 [=====] - 0s 3ms/step - loss: 0.5973 - accuracy: 0.6938
Epoch 94/100
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77/77 [=====] - 0s 2ms/step - loss: 0.5911 - accuracy: 0.7117
Epoch 95/100
77/77 [=====] - 0s 1ms/step - loss: 0.5939 - accuracy: 0.7101
Epoch 96/100
77/77 [=====] - 0s 2ms/step - loss: 0.5841 - accuracy: 0.7166
Epoch 97/100
77/77 [=====] - 0s 1ms/step - loss: 0.5929 - accuracy: 0.7150
Epoch 98/100
77/77 [=====] - 0s 2ms/step - loss: 0.5996 - accuracy: 0.7020
Epoch 99/100
77/77 [=====] - 0s 1ms/step - loss: 0.6016 - accuracy: 0.6971
Epoch 100/100
77/77 [=====] - 0s 2ms/step - loss: 0.5904 - accuracy: 0.7020
20/20 [=====] - 0s 2ms/step - loss: 0.5807 - accuracy: 0.7078
Epoch 1/100
77/77 [=====] - 1s 2ms/step - loss: 2.3464 - accuracy: 0.6303
Epoch 2/100
77/77 [=====] - 0s 2ms/step - loss: 1.6417 - accuracy: 0.6645
Epoch 3/100
77/77 [=====] - 0s 3ms/step - loss: 1.3698 - accuracy: 0.6645
Epoch 4/100
77/77 [=====] - 0s 2ms/step - loss: 1.1789 - accuracy: 0.6661
Epoch 5/100
77/77 [=====] - 0s 2ms/step - loss: 1.0246 - accuracy: 0.6726
Epoch 6/100
77/77 [=====] - 0s 3ms/step - loss: 0.9295 - accuracy: 0.6661
Epoch 7/100
77/77 [=====] - 0s 2ms/step - loss: 0.8480 - accuracy: 0.6759
Epoch 8/100
77/77 [=====] - 0s 2ms/step - loss: 0.8006 - accuracy: 0.6678
Epoch 9/100
77/77 [=====] - 0s 2ms/step - loss: 0.7518 - accuracy: 0.6726
Epoch 10/100
77/77 [=====] - 0s 3ms/step - loss: 0.7234 - accuracy: 0.6743
Epoch 11/100
77/77 [=====] - 0s 2ms/step - loss: 0.7001 - accuracy: 0.6726
Epoch 12/100
77/77 [=====] - 0s 2ms/step - loss: 0.6806 - accuracy: 0.6694
Epoch 13/100
77/77 [=====] - 0s 2ms/step - loss: 0.6719 - accuracy: 0.6645
Epoch 14/100
77/77 [=====] - 0s 3ms/step - loss: 0.6623 - accuracy: 0.6759
Epoch 15/100
77/77 [=====] - 0s 2ms/step - loss: 0.6576 - accuracy: 0.6710
Epoch 16/100
77/77 [=====] - 0s 2ms/step - loss: 0.6532 - accuracy: 0.6726
Epoch 17/100
77/77 [=====] - 0s 3ms/step - loss: 0.6537 - accuracy: 0.6645
Epoch 18/100
77/77 [=====] - 0s 2ms/step - loss: 0.6370 - accuracy: 0.6889
Epoch 19/100
77/77 [=====] - 0s 2ms/step - loss: 0.6413 - accuracy: 0.6906
Epoch 20/100
77/77 [=====] - 0s 2ms/step - loss: 0.6308 - accuracy: 0.6808
Epoch 21/100
77/77 [=====] - 0s 2ms/step - loss: 0.6310 - accuracy: 0.6889
Epoch 22/100
77/77 [=====] - 0s 3ms/step - loss: 0.6341 - accuracy: 0.6922
Epoch 23/100
77/77 [=====] - 0s 2ms/step - loss: 0.6303 - accuracy: 0.6824
Epoch 24/100
77/77 [=====] - 0s 3ms/step - loss: 0.6299 - accuracy: 0.6954
Epoch 25/100
77/77 [=====] - 0s 2ms/step - loss: 0.6283 - accuracy: 0.6873
Epoch 26/100
77/77 [=====] - 0s 2ms/step - loss: 0.6167 - accuracy: 0.7020
Epoch 27/100
77/77 [=====] - 0s 2ms/step - loss: 0.6079 - accuracy: 0.6938
Epoch 28/100
77/77 [=====] - 0s 2ms/step - loss: 0.6125 - accuracy: 0.6873
Epoch 29/100
77/77 [=====] - 0s 3ms/step - loss: 0.6190 - accuracy: 0.6873
Epoch 30/100
77/77 [=====] - 0s 3ms/step - loss: 0.6163 - accuracy: 0.7003
Epoch 31/100
77/77 [=====] - 0s 3ms/step - loss: 0.6203 - accuracy: 0.6857
Epoch 32/100
77/77 [=====] - 0s 2ms/step - loss: 0.6192 - accuracy: 0.6824
Epoch 33/100
77/77 [=====] - 0s 3ms/step - loss: 0.6187 - accuracy: 0.6971
Epoch 34/100
77/77 [=====] - 0s 4ms/step - loss: 0.6127 - accuracy: 0.6954
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Epoch 35/100
77/77 [=====] - 0s 3ms/step - loss: 0.6103 - accuracy: 0.6889
Epoch 36/100
77/77 [=====] - 0s 3ms/step - loss: 0.6172 - accuracy: 0.7052
Epoch 37/100
77/77 [=====] - 0s 2ms/step - loss: 0.6077 - accuracy: 0.7068
Epoch 38/100
77/77 [=====] - 0s 3ms/step - loss: 0.6115 - accuracy: 0.6922
Epoch 39/100
77/77 [=====] - 0s 2ms/step - loss: 0.6086 - accuracy: 0.7085
Epoch 40/100
77/77 [=====] - 0s 3ms/step - loss: 0.6114 - accuracy: 0.6938
Epoch 41/100
77/77 [=====] - 0s 3ms/step - loss: 0.6090 - accuracy: 0.6987
Epoch 42/100
77/77 [=====] - 0s 3ms/step - loss: 0.6003 - accuracy: 0.6873
Epoch 43/100
77/77 [=====] - 0s 2ms/step - loss: 0.6102 - accuracy: 0.6857
Epoch 44/100
77/77 [=====] - 0s 3ms/step - loss: 0.6005 - accuracy: 0.7020
Epoch 45/100
77/77 [=====] - 0s 3ms/step - loss: 0.5994 - accuracy: 0.7003
Epoch 46/100
77/77 [=====] - 0s 3ms/step - loss: 0.5965 - accuracy: 0.7003
Epoch 47/100
77/77 [=====] - 0s 3ms/step - loss: 0.6038 - accuracy: 0.7003
Epoch 48/100
77/77 [=====] - 0s 4ms/step - loss: 0.6097 - accuracy: 0.7085
Epoch 49/100
77/77 [=====] - 0s 3ms/step - loss: 0.6036 - accuracy: 0.7036
Epoch 50/100
77/77 [=====] - 0s 2ms/step - loss: 0.5943 - accuracy: 0.7068
Epoch 51/100
77/77 [=====] - 0s 2ms/step - loss: 0.6081 - accuracy: 0.7003
Epoch 52/100
77/77 [=====] - 0s 3ms/step - loss: 0.5958 - accuracy: 0.6954
Epoch 53/100
77/77 [=====] - 0s 2ms/step - loss: 0.6041 - accuracy: 0.6954
Epoch 54/100
77/77 [=====] - 0s 3ms/step - loss: 0.6083 - accuracy: 0.6857
Epoch 55/100
77/77 [=====] - 0s 2ms/step - loss: 0.5970 - accuracy: 0.7182
Epoch 56/100
77/77 [=====] - 0s 2ms/step - loss: 0.6022 - accuracy: 0.6922
Epoch 57/100
77/77 [=====] - 0s 2ms/step - loss: 0.6015 - accuracy: 0.6987
Epoch 58/100
77/77 [=====] - 0s 3ms/step - loss: 0.5950 - accuracy: 0.6954
Epoch 59/100
77/77 [=====] - 0s 2ms/step - loss: 0.5932 - accuracy: 0.7068
Epoch 60/100
77/77 [=====] - 0s 3ms/step - loss: 0.5957 - accuracy: 0.6938
Epoch 61/100
77/77 [=====] - 0s 2ms/step - loss: 0.5862 - accuracy: 0.6906
Epoch 62/100
77/77 [=====] - 0s 2ms/step - loss: 0.5989 - accuracy: 0.6954
Epoch 63/100
77/77 [=====] - 0s 2ms/step - loss: 0.5913 - accuracy: 0.6971
Epoch 64/100
77/77 [=====] - 0s 2ms/step - loss: 0.5947 - accuracy: 0.7150
Epoch 65/100
77/77 [=====] - 0s 2ms/step - loss: 0.5925 - accuracy: 0.7068
Epoch 66/100
77/77 [=====] - 0s 4ms/step - loss: 0.5973 - accuracy: 0.6971
Epoch 67/100
77/77 [=====] - 0s 3ms/step - loss: 0.6031 - accuracy: 0.7003
Epoch 68/100
77/77 [=====] - 0s 2ms/step - loss: 0.5871 - accuracy: 0.7085
Epoch 69/100
77/77 [=====] - 0s 3ms/step - loss: 0.5876 - accuracy: 0.6938
Epoch 70/100
77/77 [=====] - 0s 3ms/step - loss: 0.5973 - accuracy: 0.6906
Epoch 71/100
77/77 [=====] - 0s 3ms/step - loss: 0.5870 - accuracy: 0.7166
Epoch 72/100
77/77 [=====] - 0s 3ms/step - loss: 0.5906 - accuracy: 0.7134
Epoch 73/100
77/77 [=====] - 0s 2ms/step - loss: 0.5963 - accuracy: 0.6906
Epoch 74/100
77/77 [=====] - 0s 2ms/step - loss: 0.5972 - accuracy: 0.6971
Epoch 75/100
77/77 [=====] - 0s 2ms/step - loss: 0.6037 - accuracy: 0.6922

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Epoch 76/100
77/77 [=====] - 0s 3ms/step - loss: 0.5958 - accuracy: 0.7052
Epoch 77/100
77/77 [=====] - 0s 4ms/step - loss: 0.5920 - accuracy: 0.7052
Epoch 78/100
77/77 [=====] - 0s 2ms/step - loss: 0.5878 - accuracy: 0.7101
Epoch 79/100
77/77 [=====] - 0s 2ms/step - loss: 0.5908 - accuracy: 0.7036
Epoch 80/100
77/77 [=====] - 0s 2ms/step - loss: 0.5904 - accuracy: 0.7085
Epoch 81/100
77/77 [=====] - 0s 3ms/step - loss: 0.5979 - accuracy: 0.7085
Epoch 82/100
77/77 [=====] - 0s 4ms/step - loss: 0.5913 - accuracy: 0.6971
Epoch 83/100
77/77 [=====] - 0s 3ms/step - loss: 0.5945 - accuracy: 0.7101
Epoch 84/100
77/77 [=====] - 0s 2ms/step - loss: 0.5921 - accuracy: 0.7036
Epoch 85/100
77/77 [=====] - 0s 2ms/step - loss: 0.5954 - accuracy: 0.7134
Epoch 86/100
77/77 [=====] - 0s 2ms/step - loss: 0.5855 - accuracy: 0.7052
Epoch 87/100
77/77 [=====] - 0s 2ms/step - loss: 0.5890 - accuracy: 0.7085
Epoch 88/100
77/77 [=====] - 0s 3ms/step - loss: 0.5891 - accuracy: 0.6971
Epoch 89/100
77/77 [=====] - 0s 2ms/step - loss: 0.5912 - accuracy: 0.7020
Epoch 90/100
77/77 [=====] - 0s 2ms/step - loss: 0.5792 - accuracy: 0.7248
Epoch 91/100
77/77 [=====] - 0s 2ms/step - loss: 0.5858 - accuracy: 0.7085
Epoch 92/100
77/77 [=====] - 0s 2ms/step - loss: 0.5816 - accuracy: 0.7068
Epoch 93/100
77/77 [=====] - 0s 2ms/step - loss: 0.5956 - accuracy: 0.7101
Epoch 94/100
77/77 [=====] - 0s 2ms/step - loss: 0.5910 - accuracy: 0.7036
Epoch 95/100
77/77 [=====] - 0s 2ms/step - loss: 0.5795 - accuracy: 0.7329
Epoch 96/100
77/77 [=====] - 0s 3ms/step - loss: 0.5873 - accuracy: 0.7296
Epoch 97/100
77/77 [=====] - 0s 3ms/step - loss: 0.5916 - accuracy: 0.7052
Epoch 98/100
77/77 [=====] - 0s 2ms/step - loss: 0.5874 - accuracy: 0.7215
Epoch 99/100
77/77 [=====] - 0s 2ms/step - loss: 0.5932 - accuracy: 0.7036
Epoch 100/100
77/77 [=====] - 0s 3ms/step - loss: 0.5870 - accuracy: 0.7117
20/20 [=====] - 0s 1ms/step - loss: 0.6836 - accuracy: 0.6169
Epoch 1/100
77/77 [=====] - 1s 2ms/step - loss: 3.2673 - accuracy: 0.6287
Epoch 2/100
77/77 [=====] - 0s 2ms/step - loss: 1.8063 - accuracy: 0.6336
Epoch 3/100
77/77 [=====] - 0s 3ms/step - loss: 1.4854 - accuracy: 0.6417
Epoch 4/100
77/77 [=====] - 0s 3ms/step - loss: 1.2557 - accuracy: 0.6580
Epoch 5/100
77/77 [=====] - 0s 2ms/step - loss: 1.0852 - accuracy: 0.6580
Epoch 6/100
77/77 [=====] - 0s 2ms/step - loss: 0.9736 - accuracy: 0.6596
Epoch 7/100
77/77 [=====] - 0s 2ms/step - loss: 0.8794 - accuracy: 0.6547
Epoch 8/100
77/77 [=====] - 0s 3ms/step - loss: 0.8160 - accuracy: 0.6580
Epoch 9/100
77/77 [=====] - 0s 2ms/step - loss: 0.7678 - accuracy: 0.6612
Epoch 10/100
77/77 [=====] - 0s 2ms/step - loss: 0.7353 - accuracy: 0.6547
Epoch 11/100
77/77 [=====] - 0s 3ms/step - loss: 0.7108 - accuracy: 0.6547
Epoch 12/100
77/77 [=====] - 0s 3ms/step - loss: 0.6886 - accuracy: 0.6531
Epoch 13/100
77/77 [=====] - 0s 2ms/step - loss: 0.6728 - accuracy: 0.6498
Epoch 14/100
77/77 [=====] - 0s 2ms/step - loss: 0.6703 - accuracy: 0.6564
Epoch 15/100
77/77 [=====] - 0s 3ms/step - loss: 0.6621 - accuracy: 0.6580
Epoch 16/100
```



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77/77 [=====] - 0s 2ms/step - loss: 0.6549 - accuracy: 0.6547
Epoch 17/100
77/77 [=====] - 0s 3ms/step - loss: 0.6485 - accuracy: 0.6596
Epoch 18/100
77/77 [=====] - 0s 3ms/step - loss: 0.6467 - accuracy: 0.6580
Epoch 19/100
77/77 [=====] - 0s 3ms/step - loss: 0.6425 - accuracy: 0.6531
Epoch 20/100
77/77 [=====] - 0s 4ms/step - loss: 0.6442 - accuracy: 0.6531
Epoch 21/100
77/77 [=====] - 0s 2ms/step - loss: 0.6405 - accuracy: 0.6629
Epoch 22/100
77/77 [=====] - 0s 2ms/step - loss: 0.6405 - accuracy: 0.6564
Epoch 23/100
77/77 [=====] - 0s 2ms/step - loss: 0.6350 - accuracy: 0.6678
Epoch 24/100
77/77 [=====] - 0s 2ms/step - loss: 0.6327 - accuracy: 0.6661
Epoch 25/100
77/77 [=====] - 0s 2ms/step - loss: 0.6342 - accuracy: 0.6840
Epoch 26/100
77/77 [=====] - 0s 1ms/step - loss: 0.6315 - accuracy: 0.6792
Epoch 27/100
77/77 [=====] - 0s 2ms/step - loss: 0.6231 - accuracy: 0.6857
Epoch 28/100
77/77 [=====] - 0s 1ms/step - loss: 0.6323 - accuracy: 0.6857
Epoch 29/100
77/77 [=====] - 0s 2ms/step - loss: 0.6281 - accuracy: 0.6938
Epoch 30/100
77/77 [=====] - 0s 2ms/step - loss: 0.6263 - accuracy: 0.6857
Epoch 31/100
77/77 [=====] - 0s 2ms/step - loss: 0.6235 - accuracy: 0.6857
Epoch 32/100
77/77 [=====] - 0s 2ms/step - loss: 0.6236 - accuracy: 0.6824
Epoch 33/100
77/77 [=====] - 0s 1ms/step - loss: 0.6246 - accuracy: 0.6824
Epoch 34/100
77/77 [=====] - 0s 2ms/step - loss: 0.6243 - accuracy: 0.6759
Epoch 35/100
77/77 [=====] - 0s 2ms/step - loss: 0.6219 - accuracy: 0.6938
Epoch 36/100
77/77 [=====] - 0s 2ms/step - loss: 0.6267 - accuracy: 0.6824
Epoch 37/100
77/77 [=====] - 0s 2ms/step - loss: 0.6295 - accuracy: 0.6808
Epoch 38/100
77/77 [=====] - 0s 2ms/step - loss: 0.6199 - accuracy: 0.6906
Epoch 39/100
77/77 [=====] - 0s 2ms/step - loss: 0.6230 - accuracy: 0.6792
Epoch 40/100
77/77 [=====] - 0s 2ms/step - loss: 0.6230 - accuracy: 0.6824
Epoch 41/100
77/77 [=====] - 0s 3ms/step - loss: 0.6169 - accuracy: 0.6906
Epoch 42/100
77/77 [=====] - 0s 2ms/step - loss: 0.6170 - accuracy: 0.6824
Epoch 43/100
77/77 [=====] - 0s 2ms/step - loss: 0.6177 - accuracy: 0.7052
Epoch 44/100
77/77 [=====] - 0s 3ms/step - loss: 0.6164 - accuracy: 0.6824
Epoch 45/100
77/77 [=====] - 0s 4ms/step - loss: 0.6207 - accuracy: 0.6987
Epoch 46/100
77/77 [=====] - 0s 2ms/step - loss: 0.6195 - accuracy: 0.6840
Epoch 47/100
77/77 [=====] - 0s 2ms/step - loss: 0.6141 - accuracy: 0.6840
Epoch 48/100
77/77 [=====] - 0s 3ms/step - loss: 0.6265 - accuracy: 0.6792
Epoch 49/100
77/77 [=====] - 0s 2ms/step - loss: 0.6163 - accuracy: 0.6938
Epoch 50/100
77/77 [=====] - 0s 2ms/step - loss: 0.6203 - accuracy: 0.7020
Epoch 51/100
77/77 [=====] - 0s 2ms/step - loss: 0.6157 - accuracy: 0.6922
Epoch 52/100
77/77 [=====] - 0s 2ms/step - loss: 0.6080 - accuracy: 0.6938
Epoch 53/100
77/77 [=====] - 0s 2ms/step - loss: 0.6145 - accuracy: 0.6906
Epoch 54/100
77/77 [=====] - 0s 2ms/step - loss: 0.6132 - accuracy: 0.6922
Epoch 55/100
77/77 [=====] - 0s 2ms/step - loss: 0.6220 - accuracy: 0.6857
Epoch 56/100
77/77 [=====] - 0s 2ms/step - loss: 0.6092 - accuracy: 0.6971
Epoch 57/100
```

77/77 [=====] - 0s 3ms/step - loss: 0.6092 - accuracy: 0.7085
Epoch 58/100
77/77 [=====] - 0s 3ms/step - loss: 0.6082 - accuracy: 0.6954
Epoch 59/100
77/77 [=====] - 0s 3ms/step - loss: 0.6146 - accuracy: 0.6824
Epoch 60/100
77/77 [=====] - 0s 2ms/step - loss: 0.6245 - accuracy: 0.6889
Epoch 61/100
77/77 [=====] - 0s 3ms/step - loss: 0.6111 - accuracy: 0.6938
Epoch 62/100
77/77 [=====] - 0s 2ms/step - loss: 0.6122 - accuracy: 0.6906
Epoch 63/100
77/77 [=====] - 0s 2ms/step - loss: 0.6104 - accuracy: 0.6922
Epoch 64/100
77/77 [=====] - 0s 2ms/step - loss: 0.6074 - accuracy: 0.6954
Epoch 65/100
77/77 [=====] - 0s 2ms/step - loss: 0.6163 - accuracy: 0.6873
Epoch 66/100
77/77 [=====] - 0s 2ms/step - loss: 0.6162 - accuracy: 0.6857
Epoch 67/100
77/77 [=====] - 0s 2ms/step - loss: 0.6079 - accuracy: 0.6792
Epoch 68/100
77/77 [=====] - 0s 2ms/step - loss: 0.6061 - accuracy: 0.6922
Epoch 69/100
77/77 [=====] - 0s 2ms/step - loss: 0.6085 - accuracy: 0.6987
Epoch 70/100
77/77 [=====] - 0s 1ms/step - loss: 0.6188 - accuracy: 0.6840
Epoch 71/100
77/77 [=====] - 0s 2ms/step - loss: 0.5920 - accuracy: 0.7052
Epoch 72/100
77/77 [=====] - 0s 2ms/step - loss: 0.6092 - accuracy: 0.7020
Epoch 73/100
77/77 [=====] - 0s 2ms/step - loss: 0.6125 - accuracy: 0.6775
Epoch 74/100
77/77 [=====] - 0s 2ms/step - loss: 0.6050 - accuracy: 0.6840
Epoch 75/100
77/77 [=====] - 0s 2ms/step - loss: 0.6016 - accuracy: 0.7036
Epoch 76/100
77/77 [=====] - 0s 2ms/step - loss: 0.6098 - accuracy: 0.7036
Epoch 77/100
77/77 [=====] - 0s 1ms/step - loss: 0.5981 - accuracy: 0.7003
Epoch 78/100
77/77 [=====] - 0s 2ms/step - loss: 0.6055 - accuracy: 0.6938
Epoch 79/100
77/77 [=====] - 0s 1ms/step - loss: 0.6009 - accuracy: 0.7068
Epoch 80/100
77/77 [=====] - 0s 2ms/step - loss: 0.6093 - accuracy: 0.7166
Epoch 81/100
77/77 [=====] - 0s 1ms/step - loss: 0.6043 - accuracy: 0.7068
Epoch 82/100
77/77 [=====] - 0s 2ms/step - loss: 0.6034 - accuracy: 0.6922
Epoch 83/100
77/77 [=====] - 0s 2ms/step - loss: 0.6118 - accuracy: 0.6873
Epoch 84/100
77/77 [=====] - 0s 2ms/step - loss: 0.6013 - accuracy: 0.7020
Epoch 85/100
77/77 [=====] - 0s 2ms/step - loss: 0.6131 - accuracy: 0.6759
Epoch 86/100
77/77 [=====] - 0s 2ms/step - loss: 0.6079 - accuracy: 0.7052
Epoch 87/100
77/77 [=====] - 0s 3ms/step - loss: 0.6024 - accuracy: 0.6971
Epoch 88/100
77/77 [=====] - 0s 2ms/step - loss: 0.6019 - accuracy: 0.6954
Epoch 89/100
77/77 [=====] - 0s 2ms/step - loss: 0.6081 - accuracy: 0.6938
Epoch 90/100
77/77 [=====] - 0s 2ms/step - loss: 0.6097 - accuracy: 0.6938
Epoch 91/100
77/77 [=====] - 0s 2ms/step - loss: 0.6002 - accuracy: 0.7150
Epoch 92/100
77/77 [=====] - 0s 2ms/step - loss: 0.6073 - accuracy: 0.7052
Epoch 93/100
77/77 [=====] - 0s 3ms/step - loss: 0.6008 - accuracy: 0.7020
Epoch 94/100
77/77 [=====] - 0s 2ms/step - loss: 0.6131 - accuracy: 0.6694
Epoch 95/100
77/77 [=====] - 0s 2ms/step - loss: 0.5992 - accuracy: 0.7052
Epoch 96/100
77/77 [=====] - 0s 2ms/step - loss: 0.5987 - accuracy: 0.7052
Epoch 97/100
77/77 [=====] - 0s 2ms/step - loss: 0.5983 - accuracy: 0.7101
Epoch 98/100

77/77 [=====] - 0s 2ms/step - loss: 0.6082 - accuracy: 0.6987
Epoch 99/100
77/77 [=====] - 0s 2ms/step - loss: 0.5974 - accuracy: 0.7020
Epoch 100/100
77/77 [=====] - 0s 2ms/step - loss: 0.5920 - accuracy: 0.7036
20/20 [=====] - 0s 1ms/step - loss: 0.5869 - accuracy: 0.7078
Epoch 1/100
77/77 [=====] - 1s 2ms/step - loss: 2.0648 - accuracy: 0.6439
Epoch 2/100
77/77 [=====] - 0s 2ms/step - loss: 1.6264 - accuracy: 0.6455
Epoch 3/100
77/77 [=====] - 0s 2ms/step - loss: 1.3561 - accuracy: 0.6244
Epoch 4/100
77/77 [=====] - 0s 2ms/step - loss: 1.1719 - accuracy: 0.6341
Epoch 5/100
77/77 [=====] - 0s 2ms/step - loss: 1.0274 - accuracy: 0.6423
Epoch 6/100
77/77 [=====] - 0s 2ms/step - loss: 0.9355 - accuracy: 0.6439
Epoch 7/100
77/77 [=====] - 0s 1ms/step - loss: 0.8508 - accuracy: 0.6520
Epoch 8/100
77/77 [=====] - 0s 2ms/step - loss: 0.8004 - accuracy: 0.6390
Epoch 9/100
77/77 [=====] - 0s 1ms/step - loss: 0.7588 - accuracy: 0.6504
Epoch 10/100
77/77 [=====] - 0s 2ms/step - loss: 0.7352 - accuracy: 0.6407
Epoch 11/100
77/77 [=====] - 0s 3ms/step - loss: 0.7079 - accuracy: 0.6472
Epoch 12/100
77/77 [=====] - 0s 2ms/step - loss: 0.6901 - accuracy: 0.6407
Epoch 13/100
77/77 [=====] - 0s 2ms/step - loss: 0.6829 - accuracy: 0.6341
Epoch 14/100
77/77 [=====] - 0s 2ms/step - loss: 0.6761 - accuracy: 0.6585
Epoch 15/100
77/77 [=====] - 0s 2ms/step - loss: 0.6700 - accuracy: 0.6455
Epoch 16/100
77/77 [=====] - 0s 2ms/step - loss: 0.6675 - accuracy: 0.6358
Epoch 17/100
77/77 [=====] - 0s 2ms/step - loss: 0.6645 - accuracy: 0.6407
Epoch 18/100
77/77 [=====] - 0s 2ms/step - loss: 0.6636 - accuracy: 0.6374
Epoch 19/100
77/77 [=====] - 0s 2ms/step - loss: 0.6574 - accuracy: 0.6325
Epoch 20/100
77/77 [=====] - 0s 2ms/step - loss: 0.6597 - accuracy: 0.6390
Epoch 21/100
77/77 [=====] - 0s 2ms/step - loss: 0.6542 - accuracy: 0.6537
Epoch 22/100
77/77 [=====] - 0s 4ms/step - loss: 0.6563 - accuracy: 0.6472
Epoch 23/100
77/77 [=====] - 0s 2ms/step - loss: 0.6587 - accuracy: 0.6472
Epoch 24/100
77/77 [=====] - 0s 2ms/step - loss: 0.6509 - accuracy: 0.6455
Epoch 25/100
77/77 [=====] - 0s 3ms/step - loss: 0.6510 - accuracy: 0.6569
Epoch 26/100
77/77 [=====] - 0s 4ms/step - loss: 0.6510 - accuracy: 0.6488
Epoch 27/100
77/77 [=====] - 0s 3ms/step - loss: 0.6462 - accuracy: 0.6618
Epoch 28/100
77/77 [=====] - 0s 2ms/step - loss: 0.6501 - accuracy: 0.6520
Epoch 29/100
77/77 [=====] - 0s 2ms/step - loss: 0.6491 - accuracy: 0.6374
Epoch 30/100
77/77 [=====] - 0s 2ms/step - loss: 0.6505 - accuracy: 0.6488
Epoch 31/100
77/77 [=====] - 0s 2ms/step - loss: 0.6382 - accuracy: 0.6683
Epoch 32/100
77/77 [=====] - 0s 2ms/step - loss: 0.6458 - accuracy: 0.6390
Epoch 33/100
77/77 [=====] - 0s 1ms/step - loss: 0.6352 - accuracy: 0.6585
Epoch 34/100
77/77 [=====] - 0s 2ms/step - loss: 0.6485 - accuracy: 0.6602
Epoch 35/100
77/77 [=====] - 0s 2ms/step - loss: 0.6438 - accuracy: 0.6358
Epoch 36/100
77/77 [=====] - 0s 3ms/step - loss: 0.6335 - accuracy: 0.6537
Epoch 37/100
77/77 [=====] - 0s 2ms/step - loss: 0.6258 - accuracy: 0.6748
Epoch 38/100
77/77 [=====] - 0s 2ms/step - loss: 0.6406 - accuracy: 0.6455

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Epoch 39/100
77/77 [=====] - 0s 2ms/step - loss: 0.6360 - accuracy: 0.6293
Epoch 40/100
77/77 [=====] - 0s 2ms/step - loss: 0.6310 - accuracy: 0.6520
Epoch 41/100
77/77 [=====] - 0s 2ms/step - loss: 0.6346 - accuracy: 0.6618
Epoch 42/100
77/77 [=====] - 0s 3ms/step - loss: 0.6322 - accuracy: 0.6585
Epoch 43/100
77/77 [=====] - 0s 3ms/step - loss: 0.6417 - accuracy: 0.6309
Epoch 44/100
77/77 [=====] - 0s 4ms/step - loss: 0.6387 - accuracy: 0.6585
Epoch 45/100
77/77 [=====] - 0s 4ms/step - loss: 0.6325 - accuracy: 0.6894
Epoch 46/100
77/77 [=====] - 0s 3ms/step - loss: 0.6268 - accuracy: 0.6602
Epoch 47/100
77/77 [=====] - 0s 2ms/step - loss: 0.6362 - accuracy: 0.6650
Epoch 48/100
77/77 [=====] - 0s 2ms/step - loss: 0.6286 - accuracy: 0.6634
Epoch 49/100
77/77 [=====] - 0s 2ms/step - loss: 0.6405 - accuracy: 0.6520
Epoch 50/100
77/77 [=====] - 0s 2ms/step - loss: 0.6346 - accuracy: 0.6667
Epoch 51/100
77/77 [=====] - 0s 2ms/step - loss: 0.6379 - accuracy: 0.6715
Epoch 52/100
77/77 [=====] - 0s 2ms/step - loss: 0.6349 - accuracy: 0.6423
Epoch 53/100
77/77 [=====] - 0s 1ms/step - loss: 0.6310 - accuracy: 0.6634
Epoch 54/100
77/77 [=====] - 0s 2ms/step - loss: 0.6356 - accuracy: 0.6699
Epoch 55/100
77/77 [=====] - 0s 3ms/step - loss: 0.6280 - accuracy: 0.6650
Epoch 56/100
77/77 [=====] - 0s 1ms/step - loss: 0.6446 - accuracy: 0.6504
Epoch 57/100
77/77 [=====] - 0s 2ms/step - loss: 0.6373 - accuracy: 0.6537
Epoch 58/100
77/77 [=====] - 0s 1ms/step - loss: 0.6296 - accuracy: 0.6602
Epoch 59/100
77/77 [=====] - 0s 2ms/step - loss: 0.6388 - accuracy: 0.6602
Epoch 60/100
77/77 [=====] - 0s 1ms/step - loss: 0.6404 - accuracy: 0.6553
Epoch 61/100
77/77 [=====] - 0s 2ms/step - loss: 0.6286 - accuracy: 0.6715
Epoch 62/100
77/77 [=====] - 0s 2ms/step - loss: 0.6419 - accuracy: 0.6585
Epoch 63/100
77/77 [=====] - 0s 2ms/step - loss: 0.6480 - accuracy: 0.6423
Epoch 64/100
77/77 [=====] - 0s 2ms/step - loss: 0.6208 - accuracy: 0.6878
Epoch 65/100
77/77 [=====] - 0s 2ms/step - loss: 0.6360 - accuracy: 0.6618
Epoch 66/100
77/77 [=====] - 0s 2ms/step - loss: 0.6381 - accuracy: 0.6504
Epoch 67/100
77/77 [=====] - 0s 2ms/step - loss: 0.6113 - accuracy: 0.6894
Epoch 68/100
77/77 [=====] - 0s 3ms/step - loss: 0.6277 - accuracy: 0.6569
Epoch 69/100
77/77 [=====] - 0s 2ms/step - loss: 0.6274 - accuracy: 0.6748
Epoch 70/100
77/77 [=====] - 0s 2ms/step - loss: 0.6361 - accuracy: 0.6585
Epoch 71/100
77/77 [=====] - 0s 2ms/step - loss: 0.6292 - accuracy: 0.6667
Epoch 72/100
77/77 [=====] - 0s 2ms/step - loss: 0.6296 - accuracy: 0.6878
Epoch 73/100
77/77 [=====] - 0s 2ms/step - loss: 0.6506 - accuracy: 0.6618
Epoch 74/100
77/77 [=====] - 0s 2ms/step - loss: 0.6276 - accuracy: 0.6602
Epoch 75/100
77/77 [=====] - 0s 2ms/step - loss: 0.6439 - accuracy: 0.6293
Epoch 76/100
77/77 [=====] - 0s 2ms/step - loss: 0.6318 - accuracy: 0.6537
Epoch 77/100
77/77 [=====] - 0s 2ms/step - loss: 0.6240 - accuracy: 0.6862
Epoch 78/100
77/77 [=====] - 0s 2ms/step - loss: 0.6237 - accuracy: 0.6650
Epoch 79/100
77/77 [=====] - 0s 2ms/step - loss: 0.6304 - accuracy: 0.6846
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Epoch 80/100
77/77 [=====] - 0s 2ms/step - loss: 0.6304 - accuracy: 0.6650
Epoch 81/100
77/77 [=====] - 0s 3ms/step - loss: 0.6248 - accuracy: 0.6862
Epoch 82/100
77/77 [=====] - 0s 2ms/step - loss: 0.6270 - accuracy: 0.6911
Epoch 83/100
77/77 [=====] - 0s 2ms/step - loss: 0.6202 - accuracy: 0.6732
Epoch 84/100
77/77 [=====] - 0s 2ms/step - loss: 0.6183 - accuracy: 0.6520
Epoch 85/100
77/77 [=====] - 0s 2ms/step - loss: 0.6238 - accuracy: 0.6911
Epoch 86/100
77/77 [=====] - 0s 2ms/step - loss: 0.6160 - accuracy: 0.6764
Epoch 87/100
77/77 [=====] - 0s 2ms/step - loss: 0.6355 - accuracy: 0.6715
Epoch 88/100
77/77 [=====] - 0s 2ms/step - loss: 0.6422 - accuracy: 0.6520
Epoch 89/100
77/77 [=====] - 0s 2ms/step - loss: 0.6290 - accuracy: 0.6553
Epoch 90/100
77/77 [=====] - 0s 2ms/step - loss: 0.6260 - accuracy: 0.6715
Epoch 91/100
77/77 [=====] - 0s 2ms/step - loss: 0.6196 - accuracy: 0.6618
Epoch 92/100
77/77 [=====] - 0s 2ms/step - loss: 0.6270 - accuracy: 0.6797
Epoch 93/100
77/77 [=====] - 0s 2ms/step - loss: 0.6274 - accuracy: 0.6683
Epoch 94/100
77/77 [=====] - 0s 2ms/step - loss: 0.6279 - accuracy: 0.6813
Epoch 95/100
77/77 [=====] - 0s 2ms/step - loss: 0.6322 - accuracy: 0.6667
Epoch 96/100
77/77 [=====] - 0s 2ms/step - loss: 0.6266 - accuracy: 0.6813
Epoch 97/100
77/77 [=====] - 0s 2ms/step - loss: 0.6233 - accuracy: 0.6797
Epoch 98/100
77/77 [=====] - 0s 2ms/step - loss: 0.6293 - accuracy: 0.6683
Epoch 99/100
77/77 [=====] - 0s 2ms/step - loss: 0.6293 - accuracy: 0.6634
Epoch 100/100
77/77 [=====] - 0s 3ms/step - loss: 0.6287 - accuracy: 0.6585
20/20 [=====] - 0s 1ms/step - loss: 0.6166 - accuracy: 0.7647
Epoch 1/100
77/77 [=====] - 1s 2ms/step - loss: 3.2775 - accuracy: 0.6325
Epoch 2/100
77/77 [=====] - 0s 2ms/step - loss: 1.6710 - accuracy: 0.6520
Epoch 3/100
77/77 [=====] - 0s 3ms/step - loss: 1.3948 - accuracy: 0.6520
Epoch 4/100
77/77 [=====] - 0s 3ms/step - loss: 1.1947 - accuracy: 0.6520
Epoch 5/100
77/77 [=====] - 0s 2ms/step - loss: 1.0484 - accuracy: 0.6520
Epoch 6/100
77/77 [=====] - 0s 2ms/step - loss: 0.9420 - accuracy: 0.6520
Epoch 7/100
77/77 [=====] - 0s 2ms/step - loss: 0.8663 - accuracy: 0.6504
Epoch 8/100
77/77 [=====] - 0s 2ms/step - loss: 0.8068 - accuracy: 0.6520
Epoch 9/100
77/77 [=====] - 0s 2ms/step - loss: 0.7639 - accuracy: 0.6520
Epoch 10/100
77/77 [=====] - 0s 2ms/step - loss: 0.7326 - accuracy: 0.6520
Epoch 11/100
77/77 [=====] - 0s 2ms/step - loss: 0.7097 - accuracy: 0.6520
Epoch 12/100
77/77 [=====] - 0s 2ms/step - loss: 0.6929 - accuracy: 0.6520
Epoch 13/100
77/77 [=====] - 0s 2ms/step - loss: 0.6805 - accuracy: 0.6520
Epoch 14/100
77/77 [=====] - 0s 2ms/step - loss: 0.6714 - accuracy: 0.6520
Epoch 15/100
77/77 [=====] - 0s 2ms/step - loss: 0.6647 - accuracy: 0.6520
Epoch 16/100
77/77 [=====] - 0s 2ms/step - loss: 0.6598 - accuracy: 0.6520
Epoch 17/100
77/77 [=====] - 0s 2ms/step - loss: 0.6563 - accuracy: 0.6520
Epoch 18/100
77/77 [=====] - 0s 2ms/step - loss: 0.6537 - accuracy: 0.6520
Epoch 19/100
77/77 [=====] - 0s 2ms/step - loss: 0.6518 - accuracy: 0.6520
Epoch 20/100
```

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77/77 [=====] - 0s 2ms/step - loss: 0.6503 - accuracy: 0.6520
Epoch 21/100
77/77 [=====] - 0s 3ms/step - loss: 0.6492 - accuracy: 0.6520
Epoch 22/100
77/77 [=====] - 0s 2ms/step - loss: 0.6485 - accuracy: 0.6520
Epoch 23/100
77/77 [=====] - 0s 2ms/step - loss: 0.6475 - accuracy: 0.6520
Epoch 24/100
77/77 [=====] - 0s 2ms/step - loss: 0.6465 - accuracy: 0.6520
Epoch 25/100
77/77 [=====] - 0s 2ms/step - loss: 0.6420 - accuracy: 0.6504
Epoch 26/100
77/77 [=====] - 0s 2ms/step - loss: 0.6401 - accuracy: 0.6585
Epoch 27/100
77/77 [=====] - 0s 2ms/step - loss: 0.6372 - accuracy: 0.6520
Epoch 28/100
77/77 [=====] - 0s 2ms/step - loss: 0.6295 - accuracy: 0.6683
Epoch 29/100
77/77 [=====] - 0s 2ms/step - loss: 0.6259 - accuracy: 0.6699
Epoch 30/100
77/77 [=====] - 0s 2ms/step - loss: 0.6281 - accuracy: 0.6797
Epoch 31/100
77/77 [=====] - 0s 3ms/step - loss: 0.6263 - accuracy: 0.6846
Epoch 32/100
77/77 [=====] - 0s 3ms/step - loss: 0.6291 - accuracy: 0.6797
Epoch 33/100
77/77 [=====] - 0s 2ms/step - loss: 0.6209 - accuracy: 0.6862
Epoch 34/100
77/77 [=====] - 0s 2ms/step - loss: 0.6155 - accuracy: 0.6813
Epoch 35/100
77/77 [=====] - 0s 3ms/step - loss: 0.6252 - accuracy: 0.6992
Epoch 36/100
77/77 [=====] - 0s 3ms/step - loss: 0.6210 - accuracy: 0.6862
Epoch 37/100
77/77 [=====] - 0s 2ms/step - loss: 0.6109 - accuracy: 0.6959
Epoch 38/100
77/77 [=====] - 0s 2ms/step - loss: 0.6199 - accuracy: 0.6943
Epoch 39/100
77/77 [=====] - 0s 4ms/step - loss: 0.6208 - accuracy: 0.6797
Epoch 40/100
77/77 [=====] - 0s 2ms/step - loss: 0.6163 - accuracy: 0.6813
Epoch 41/100
77/77 [=====] - 0s 2ms/step - loss: 0.6152 - accuracy: 0.6927
Epoch 42/100
77/77 [=====] - 0s 2ms/step - loss: 0.6250 - accuracy: 0.6943
Epoch 43/100
77/77 [=====] - 0s 2ms/step - loss: 0.6199 - accuracy: 0.6797
Epoch 44/100
77/77 [=====] - 0s 2ms/step - loss: 0.6143 - accuracy: 0.6927
Epoch 45/100
77/77 [=====] - 0s 2ms/step - loss: 0.6108 - accuracy: 0.6927
Epoch 46/100
77/77 [=====] - 0s 2ms/step - loss: 0.6217 - accuracy: 0.7008
Epoch 47/100
77/77 [=====] - 0s 2ms/step - loss: 0.6129 - accuracy: 0.6846
Epoch 48/100
77/77 [=====] - 0s 2ms/step - loss: 0.6177 - accuracy: 0.6797
Epoch 49/100
77/77 [=====] - 0s 2ms/step - loss: 0.6163 - accuracy: 0.6911
Epoch 50/100
77/77 [=====] - 0s 2ms/step - loss: 0.6089 - accuracy: 0.7024
Epoch 51/100
77/77 [=====] - 0s 2ms/step - loss: 0.6098 - accuracy: 0.6992
Epoch 52/100
77/77 [=====] - 0s 2ms/step - loss: 0.6067 - accuracy: 0.6992
Epoch 53/100
77/77 [=====] - 0s 3ms/step - loss: 0.6076 - accuracy: 0.6943
Epoch 54/100
77/77 [=====] - 0s 2ms/step - loss: 0.6082 - accuracy: 0.6943
Epoch 55/100
77/77 [=====] - 0s 2ms/step - loss: 0.6108 - accuracy: 0.6862
Epoch 56/100
77/77 [=====] - 0s 3ms/step - loss: 0.6147 - accuracy: 0.6959
Epoch 57/100
77/77 [=====] - 0s 3ms/step - loss: 0.6015 - accuracy: 0.6927
Epoch 58/100
77/77 [=====] - 0s 2ms/step - loss: 0.6091 - accuracy: 0.6911
Epoch 59/100
77/77 [=====] - 0s 2ms/step - loss: 0.6072 - accuracy: 0.6911
Epoch 60/100
77/77 [=====] - 0s 3ms/step - loss: 0.6184 - accuracy: 0.6992
Epoch 61/100
```

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77/77 [=====] - 0s 2ms/step - loss: 0.6096 - accuracy: 0.7024
Epoch 62/100
77/77 [=====] - 0s 2ms/step - loss: 0.6135 - accuracy: 0.6846
Epoch 63/100
77/77 [=====] - 0s 2ms/step - loss: 0.6144 - accuracy: 0.6846
Epoch 64/100
77/77 [=====] - 0s 2ms/step - loss: 0.6101 - accuracy: 0.6862
Epoch 65/100
77/77 [=====] - 0s 2ms/step - loss: 0.6110 - accuracy: 0.6959
Epoch 66/100
77/77 [=====] - 0s 2ms/step - loss: 0.6088 - accuracy: 0.7008
Epoch 67/100
77/77 [=====] - 0s 2ms/step - loss: 0.6080 - accuracy: 0.6797
Epoch 68/100
77/77 [=====] - 0s 2ms/step - loss: 0.6007 - accuracy: 0.7057
Epoch 69/100
77/77 [=====] - 0s 2ms/step - loss: 0.6072 - accuracy: 0.6911
Epoch 70/100
77/77 [=====] - 0s 3ms/step - loss: 0.6092 - accuracy: 0.6959
Epoch 71/100
77/77 [=====] - 0s 2ms/step - loss: 0.6067 - accuracy: 0.6943
Epoch 72/100
77/77 [=====] - 0s 2ms/step - loss: 0.6044 - accuracy: 0.6829
Epoch 73/100
77/77 [=====] - 0s 3ms/step - loss: 0.6118 - accuracy: 0.6911
Epoch 74/100
77/77 [=====] - 0s 3ms/step - loss: 0.6064 - accuracy: 0.7041
Epoch 75/100
77/77 [=====] - 0s 2ms/step - loss: 0.6016 - accuracy: 0.7024
Epoch 76/100
77/77 [=====] - 0s 2ms/step - loss: 0.5961 - accuracy: 0.7008
Epoch 77/100
77/77 [=====] - 0s 2ms/step - loss: 0.6047 - accuracy: 0.6764
Epoch 78/100
77/77 [=====] - 0s 2ms/step - loss: 0.6088 - accuracy: 0.7008
Epoch 79/100
77/77 [=====] - 0s 2ms/step - loss: 0.5986 - accuracy: 0.7024
Epoch 80/100
77/77 [=====] - 0s 3ms/step - loss: 0.6045 - accuracy: 0.6894
Epoch 81/100
77/77 [=====] - 0s 2ms/step - loss: 0.6038 - accuracy: 0.7024
Epoch 82/100
77/77 [=====] - 0s 2ms/step - loss: 0.6040 - accuracy: 0.7024
Epoch 83/100
77/77 [=====] - 0s 2ms/step - loss: 0.6005 - accuracy: 0.6878
Epoch 84/100
77/77 [=====] - 0s 2ms/step - loss: 0.5969 - accuracy: 0.7024
Epoch 85/100
77/77 [=====] - 0s 2ms/step - loss: 0.6014 - accuracy: 0.7089
Epoch 86/100
77/77 [=====] - 0s 2ms/step - loss: 0.6026 - accuracy: 0.7041
Epoch 87/100
77/77 [=====] - 0s 2ms/step - loss: 0.6055 - accuracy: 0.6992
Epoch 88/100
77/77 [=====] - 0s 2ms/step - loss: 0.5968 - accuracy: 0.7057
Epoch 89/100
77/77 [=====] - 0s 2ms/step - loss: 0.5996 - accuracy: 0.7089
Epoch 90/100
77/77 [=====] - 0s 3ms/step - loss: 0.5964 - accuracy: 0.7203
Epoch 91/100
77/77 [=====] - 0s 2ms/step - loss: 0.5953 - accuracy: 0.6829
Epoch 92/100
77/77 [=====] - 0s 2ms/step - loss: 0.6171 - accuracy: 0.6780
Epoch 93/100
77/77 [=====] - 0s 2ms/step - loss: 0.6016 - accuracy: 0.7171
Epoch 94/100
77/77 [=====] - 0s 3ms/step - loss: 0.6066 - accuracy: 0.6959
Epoch 95/100
77/77 [=====] - 0s 2ms/step - loss: 0.6099 - accuracy: 0.6911
Epoch 96/100
77/77 [=====] - 0s 3ms/step - loss: 0.5981 - accuracy: 0.6976
Epoch 97/100
77/77 [=====] - 0s 2ms/step - loss: 0.5980 - accuracy: 0.7122
Epoch 98/100
77/77 [=====] - 0s 2ms/step - loss: 0.6140 - accuracy: 0.6943
Epoch 99/100
77/77 [=====] - 0s 2ms/step - loss: 0.6066 - accuracy: 0.6878
Epoch 100/100
77/77 [=====] - 0s 2ms/step - loss: 0.6054 - accuracy: 0.6927
20/20 [=====] - 0s 2ms/step - loss: 0.6020 - accuracy: 0.7386
Epoch 1/100
77/77 [=====] - 1s 2ms/step - loss: 4.7128 - accuracy: 0.6352
```

Epoch 2/100
77/77 [=====] - 0s 2ms/step - loss: 1.4753 - accuracy: 0.6450
Epoch 3/100
77/77 [=====] - 0s 3ms/step - loss: 0.8473 - accuracy: 0.6515
Epoch 4/100
77/77 [=====] - 0s 2ms/step - loss: 0.7023 - accuracy: 0.6515
Epoch 5/100
77/77 [=====] - 0s 2ms/step - loss: 0.6660 - accuracy: 0.6515
Epoch 6/100
77/77 [=====] - 0s 2ms/step - loss: 0.6605 - accuracy: 0.6515
Epoch 7/100
77/77 [=====] - 0s 2ms/step - loss: 0.6582 - accuracy: 0.6515
Epoch 8/100
77/77 [=====] - 0s 2ms/step - loss: 0.6511 - accuracy: 0.6531
Epoch 9/100
77/77 [=====] - 0s 2ms/step - loss: 0.6522 - accuracy: 0.6498
Epoch 10/100
77/77 [=====] - 0s 2ms/step - loss: 0.6525 - accuracy: 0.6515
Epoch 11/100
77/77 [=====] - 0s 2ms/step - loss: 0.6503 - accuracy: 0.6515
Epoch 12/100
77/77 [=====] - 0s 2ms/step - loss: 0.6465 - accuracy: 0.6515
Epoch 13/100
77/77 [=====] - 0s 2ms/step - loss: 0.6444 - accuracy: 0.6515
Epoch 14/100
77/77 [=====] - 0s 2ms/step - loss: 0.6438 - accuracy: 0.6515
Epoch 15/100
77/77 [=====] - 0s 2ms/step - loss: 0.6430 - accuracy: 0.6515
Epoch 16/100
77/77 [=====] - 0s 3ms/step - loss: 0.6429 - accuracy: 0.6515
Epoch 17/100
77/77 [=====] - 0s 2ms/step - loss: 0.6440 - accuracy: 0.6515
Epoch 18/100
77/77 [=====] - 0s 3ms/step - loss: 0.6434 - accuracy: 0.6515
Epoch 19/100
77/77 [=====] - 0s 3ms/step - loss: 0.6434 - accuracy: 0.6515
Epoch 20/100
77/77 [=====] - 0s 2ms/step - loss: 0.6447 - accuracy: 0.6515
Epoch 21/100
77/77 [=====] - 0s 2ms/step - loss: 0.6408 - accuracy: 0.6515
Epoch 22/100
77/77 [=====] - 0s 2ms/step - loss: 0.6436 - accuracy: 0.6515
Epoch 23/100
77/77 [=====] - 0s 2ms/step - loss: 0.6428 - accuracy: 0.6515
Epoch 24/100
77/77 [=====] - 0s 2ms/step - loss: 0.6409 - accuracy: 0.6515
Epoch 25/100
77/77 [=====] - 0s 2ms/step - loss: 0.6384 - accuracy: 0.6515
Epoch 26/100
77/77 [=====] - 0s 2ms/step - loss: 0.6441 - accuracy: 0.6515
Epoch 27/100
77/77 [=====] - 0s 2ms/step - loss: 0.6386 - accuracy: 0.6515
Epoch 28/100
77/77 [=====] - 0s 3ms/step - loss: 0.6412 - accuracy: 0.6515
Epoch 29/100
77/77 [=====] - 0s 2ms/step - loss: 0.6441 - accuracy: 0.6515
Epoch 30/100
77/77 [=====] - 0s 3ms/step - loss: 0.6397 - accuracy: 0.6515
Epoch 31/100
77/77 [=====] - 0s 3ms/step - loss: 0.6469 - accuracy: 0.6515
Epoch 32/100
77/77 [=====] - 0s 4ms/step - loss: 0.6510 - accuracy: 0.6515
Epoch 33/100
77/77 [=====] - 0s 5ms/step - loss: 0.6376 - accuracy: 0.6515
Epoch 34/100
77/77 [=====] - 0s 3ms/step - loss: 0.6362 - accuracy: 0.6515
Epoch 35/100
77/77 [=====] - 0s 3ms/step - loss: 0.6429 - accuracy: 0.6515
Epoch 36/100
77/77 [=====] - 0s 4ms/step - loss: 0.6406 - accuracy: 0.6515
Epoch 37/100
77/77 [=====] - 0s 2ms/step - loss: 0.6354 - accuracy: 0.6515
Epoch 38/100
77/77 [=====] - 0s 3ms/step - loss: 0.6387 - accuracy: 0.6515
Epoch 39/100
77/77 [=====] - 0s 2ms/step - loss: 0.6401 - accuracy: 0.6515
Epoch 40/100
77/77 [=====] - 0s 3ms/step - loss: 0.6368 - accuracy: 0.6515
Epoch 41/100
77/77 [=====] - 0s 2ms/step - loss: 0.6400 - accuracy: 0.6515
Epoch 42/100
77/77 [=====] - 0s 2ms/step - loss: 0.6374 - accuracy: 0.6515


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Epoch 43/100
77/77 [=====] - 0s 2ms/step - loss: 0.6381 - accuracy: 0.6515
Epoch 44/100
77/77 [=====] - 0s 2ms/step - loss: 0.6339 - accuracy: 0.6515
Epoch 45/100
77/77 [=====] - 0s 2ms/step - loss: 0.6415 - accuracy: 0.6515
Epoch 46/100
77/77 [=====] - 0s 2ms/step - loss: 0.6475 - accuracy: 0.6515
Epoch 47/100
77/77 [=====] - 0s 3ms/step - loss: 0.6353 - accuracy: 0.6515
Epoch 48/100
77/77 [=====] - 0s 3ms/step - loss: 0.6457 - accuracy: 0.6515
Epoch 49/100
77/77 [=====] - 0s 2ms/step - loss: 0.6407 - accuracy: 0.6515
Epoch 50/100
77/77 [=====] - 0s 2ms/step - loss: 0.6481 - accuracy: 0.6515
Epoch 51/100
77/77 [=====] - 0s 2ms/step - loss: 0.6340 - accuracy: 0.6515
Epoch 52/100
77/77 [=====] - 0s 2ms/step - loss: 0.6362 - accuracy: 0.6515
Epoch 53/100
77/77 [=====] - 0s 3ms/step - loss: 0.6360 - accuracy: 0.6515
Epoch 54/100
77/77 [=====] - 0s 2ms/step - loss: 0.6382 - accuracy: 0.6515
Epoch 55/100
77/77 [=====] - 0s 3ms/step - loss: 0.6405 - accuracy: 0.6515
Epoch 56/100
77/77 [=====] - 0s 3ms/step - loss: 0.6422 - accuracy: 0.6515
Epoch 57/100
77/77 [=====] - 0s 2ms/step - loss: 0.6423 - accuracy: 0.6515
Epoch 58/100
77/77 [=====] - 0s 3ms/step - loss: 0.6353 - accuracy: 0.6515
Epoch 59/100
77/77 [=====] - 0s 3ms/step - loss: 0.6426 - accuracy: 0.6515
Epoch 60/100
77/77 [=====] - 0s 3ms/step - loss: 0.6412 - accuracy: 0.6515
Epoch 61/100
77/77 [=====] - 0s 2ms/step - loss: 0.6409 - accuracy: 0.6515
Epoch 62/100
77/77 [=====] - 0s 3ms/step - loss: 0.6381 - accuracy: 0.6515
Epoch 63/100
77/77 [=====] - 0s 2ms/step - loss: 0.6371 - accuracy: 0.6515
Epoch 64/100
77/77 [=====] - 0s 3ms/step - loss: 0.6342 - accuracy: 0.6515
Epoch 65/100
77/77 [=====] - 0s 3ms/step - loss: 0.6413 - accuracy: 0.6515
Epoch 66/100
77/77 [=====] - 0s 2ms/step - loss: 0.6360 - accuracy: 0.6515
Epoch 67/100
77/77 [=====] - 0s 2ms/step - loss: 0.6422 - accuracy: 0.6515
Epoch 68/100
77/77 [=====] - 0s 2ms/step - loss: 0.6384 - accuracy: 0.6515
Epoch 69/100
77/77 [=====] - 0s 2ms/step - loss: 0.6355 - accuracy: 0.6515
Epoch 70/100
77/77 [=====] - 0s 2ms/step - loss: 0.6300 - accuracy: 0.6515
Epoch 71/100
77/77 [=====] - 0s 2ms/step - loss: 0.6441 - accuracy: 0.6515
Epoch 72/100
77/77 [=====] - 0s 2ms/step - loss: 0.6407 - accuracy: 0.6515
Epoch 73/100
77/77 [=====] - 0s 2ms/step - loss: 0.6337 - accuracy: 0.6515
Epoch 74/100
77/77 [=====] - 0s 2ms/step - loss: 0.6384 - accuracy: 0.6515
Epoch 75/100
77/77 [=====] - 0s 2ms/step - loss: 0.6413 - accuracy: 0.6515
Epoch 76/100
77/77 [=====] - 0s 3ms/step - loss: 0.6366 - accuracy: 0.6515
Epoch 77/100
77/77 [=====] - 0s 3ms/step - loss: 0.6397 - accuracy: 0.6515
Epoch 78/100
77/77 [=====] - 0s 2ms/step - loss: 0.6381 - accuracy: 0.6515
Epoch 79/100
77/77 [=====] - 0s 2ms/step - loss: 0.6272 - accuracy: 0.6515
Epoch 80/100
77/77 [=====] - 0s 2ms/step - loss: 0.6408 - accuracy: 0.6515
Epoch 81/100
77/77 [=====] - 0s 2ms/step - loss: 0.6366 - accuracy: 0.6515
Epoch 82/100
77/77 [=====] - 0s 3ms/step - loss: 0.6311 - accuracy: 0.6515
Epoch 83/100
77/77 [=====] - 0s 2ms/step - loss: 0.6397 - accuracy: 0.6515
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Epoch 84/100
77/77 [=====] - 0s 2ms/step - loss: 0.6358 - accuracy: 0.6515
Epoch 85/100
77/77 [=====] - 0s 2ms/step - loss: 0.6353 - accuracy: 0.6515
Epoch 86/100
77/77 [=====] - 0s 2ms/step - loss: 0.6368 - accuracy: 0.6515
Epoch 87/100
77/77 [=====] - 0s 2ms/step - loss: 0.6515 - accuracy: 0.6515
Epoch 88/100
77/77 [=====] - 0s 2ms/step - loss: 0.6467 - accuracy: 0.6515
Epoch 89/100
77/77 [=====] - 0s 3ms/step - loss: 0.6352 - accuracy: 0.6515
Epoch 90/100
77/77 [=====] - 0s 2ms/step - loss: 0.6405 - accuracy: 0.6515
Epoch 91/100
77/77 [=====] - 0s 2ms/step - loss: 0.6441 - accuracy: 0.6515
Epoch 92/100
77/77 [=====] - 0s 2ms/step - loss: 0.6430 - accuracy: 0.6515
Epoch 93/100
77/77 [=====] - 0s 3ms/step - loss: 0.6304 - accuracy: 0.6515
Epoch 94/100
77/77 [=====] - 0s 2ms/step - loss: 0.6391 - accuracy: 0.6515
Epoch 95/100
77/77 [=====] - 0s 2ms/step - loss: 0.6365 - accuracy: 0.6515
Epoch 96/100
77/77 [=====] - 0s 2ms/step - loss: 0.6420 - accuracy: 0.6515
Epoch 97/100
77/77 [=====] - 0s 2ms/step - loss: 0.6441 - accuracy: 0.6515
Epoch 98/100
77/77 [=====] - 0s 2ms/step - loss: 0.6430 - accuracy: 0.6515
Epoch 99/100
77/77 [=====] - 0s 2ms/step - loss: 0.6432 - accuracy: 0.6515
Epoch 100/100
77/77 [=====] - 0s 2ms/step - loss: 0.6385 - accuracy: 0.6515
20/20 [=====] - 0s 2ms/step - loss: 0.6221 - accuracy: 0.6494
Epoch 1/100
77/77 [=====] - 1s 2ms/step - loss: 4.5820 - accuracy: 0.6531
Epoch 2/100
77/77 [=====] - 0s 3ms/step - loss: 1.4316 - accuracy: 0.6661
Epoch 3/100
77/77 [=====] - 0s 3ms/step - loss: 0.8205 - accuracy: 0.6678
Epoch 4/100
77/77 [=====] - 0s 2ms/step - loss: 0.6859 - accuracy: 0.6678
Epoch 5/100
77/77 [=====] - 0s 2ms/step - loss: 0.6540 - accuracy: 0.6678
Epoch 6/100
77/77 [=====] - 0s 2ms/step - loss: 0.6450 - accuracy: 0.6678
Epoch 7/100
77/77 [=====] - 0s 2ms/step - loss: 0.6414 - accuracy: 0.6678
Epoch 8/100
77/77 [=====] - 0s 2ms/step - loss: 0.6396 - accuracy: 0.6678
Epoch 9/100
77/77 [=====] - 0s 2ms/step - loss: 0.6382 - accuracy: 0.6678
Epoch 10/100
77/77 [=====] - 0s 2ms/step - loss: 0.6372 - accuracy: 0.6678
Epoch 11/100
77/77 [=====] - 0s 2ms/step - loss: 0.6362 - accuracy: 0.6678
Epoch 12/100
77/77 [=====] - 0s 3ms/step - loss: 0.6359 - accuracy: 0.6678
Epoch 13/100
77/77 [=====] - 0s 2ms/step - loss: 0.6356 - accuracy: 0.6678
Epoch 14/100
77/77 [=====] - 0s 3ms/step - loss: 0.6350 - accuracy: 0.6678
Epoch 15/100
77/77 [=====] - 0s 2ms/step - loss: 0.6350 - accuracy: 0.6678
Epoch 16/100
77/77 [=====] - 0s 2ms/step - loss: 0.6346 - accuracy: 0.6678
Epoch 17/100
77/77 [=====] - 0s 2ms/step - loss: 0.6347 - accuracy: 0.6678
Epoch 18/100
77/77 [=====] - 0s 2ms/step - loss: 0.6342 - accuracy: 0.6678
Epoch 19/100
77/77 [=====] - 0s 2ms/step - loss: 0.6334 - accuracy: 0.6678
Epoch 20/100
77/77 [=====] - 0s 3ms/step - loss: 0.6343 - accuracy: 0.6678
Epoch 21/100
77/77 [=====] - 0s 2ms/step - loss: 0.6351 - accuracy: 0.6678
Epoch 22/100
77/77 [=====] - 0s 2ms/step - loss: 0.6343 - accuracy: 0.6678
Epoch 23/100
77/77 [=====] - 0s 2ms/step - loss: 0.6332 - accuracy: 0.6678
Epoch 24/100

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77/77 [=====] - 0s 2ms/step - loss: 0.6329 - accuracy: 0.6678
Epoch 25/100
77/77 [=====] - 0s 2ms/step - loss: 0.6332 - accuracy: 0.6678
Epoch 26/100
77/77 [=====] - 0s 2ms/step - loss: 0.6332 - accuracy: 0.6678
Epoch 27/100
77/77 [=====] - 0s 3ms/step - loss: 0.6349 - accuracy: 0.6678
Epoch 28/100
77/77 [=====] - 0s 3ms/step - loss: 0.6338 - accuracy: 0.6678
Epoch 29/100
77/77 [=====] - 0s 2ms/step - loss: 0.6344 - accuracy: 0.6678
Epoch 30/100
77/77 [=====] - 0s 2ms/step - loss: 0.6322 - accuracy: 0.6678
Epoch 31/100
77/77 [=====] - 0s 2ms/step - loss: 0.6333 - accuracy: 0.6678
Epoch 32/100
77/77 [=====] - 0s 2ms/step - loss: 0.6322 - accuracy: 0.6678
Epoch 33/100
77/77 [=====] - 0s 2ms/step - loss: 0.6321 - accuracy: 0.6678
Epoch 34/100
77/77 [=====] - 0s 2ms/step - loss: 0.6309 - accuracy: 0.6678
Epoch 35/100
77/77 [=====] - 0s 2ms/step - loss: 0.6328 - accuracy: 0.6678
Epoch 36/100
77/77 [=====] - 0s 2ms/step - loss: 0.6315 - accuracy: 0.6678
Epoch 37/100
77/77 [=====] - 0s 1ms/step - loss: 0.6310 - accuracy: 0.6678
Epoch 38/100
77/77 [=====] - 0s 2ms/step - loss: 0.6329 - accuracy: 0.6678
Epoch 39/100
77/77 [=====] - 0s 2ms/step - loss: 0.6302 - accuracy: 0.6678
Epoch 40/100
77/77 [=====] - 0s 2ms/step - loss: 0.6309 - accuracy: 0.6678
Epoch 41/100
77/77 [=====] - 0s 2ms/step - loss: 0.6344 - accuracy: 0.6678
Epoch 42/100
77/77 [=====] - 0s 4ms/step - loss: 0.6303 - accuracy: 0.6678
Epoch 43/100
77/77 [=====] - 0s 4ms/step - loss: 0.6310 - accuracy: 0.6678
Epoch 44/100
77/77 [=====] - 0s 3ms/step - loss: 0.6326 - accuracy: 0.6678
Epoch 45/100
77/77 [=====] - 0s 3ms/step - loss: 0.6305 - accuracy: 0.6678
Epoch 46/100
77/77 [=====] - 0s 3ms/step - loss: 0.6293 - accuracy: 0.6678
Epoch 47/100
77/77 [=====] - 0s 3ms/step - loss: 0.6295 - accuracy: 0.6678
Epoch 48/100
77/77 [=====] - 0s 3ms/step - loss: 0.6305 - accuracy: 0.6678
Epoch 49/100
77/77 [=====] - 0s 3ms/step - loss: 0.6314 - accuracy: 0.6678
Epoch 50/100
77/77 [=====] - 0s 3ms/step - loss: 0.6284 - accuracy: 0.6678
Epoch 51/100
77/77 [=====] - 0s 2ms/step - loss: 0.6293 - accuracy: 0.6678
Epoch 52/100
77/77 [=====] - 0s 2ms/step - loss: 0.6280 - accuracy: 0.6678
Epoch 53/100
77/77 [=====] - 0s 2ms/step - loss: 0.6325 - accuracy: 0.6678
Epoch 54/100
77/77 [=====] - 0s 2ms/step - loss: 0.6293 - accuracy: 0.6678
Epoch 55/100
77/77 [=====] - 0s 4ms/step - loss: 0.6282 - accuracy: 0.6678
Epoch 56/100
77/77 [=====] - 0s 4ms/step - loss: 0.6292 - accuracy: 0.6678
Epoch 57/100
77/77 [=====] - 0s 5ms/step - loss: 0.6319 - accuracy: 0.6678
Epoch 58/100
77/77 [=====] - 0s 3ms/step - loss: 0.6282 - accuracy: 0.6678
Epoch 59/100
77/77 [=====] - 0s 3ms/step - loss: 0.6305 - accuracy: 0.6678
Epoch 60/100
77/77 [=====] - 0s 3ms/step - loss: 0.6270 - accuracy: 0.6678
Epoch 61/100
77/77 [=====] - 0s 3ms/step - loss: 0.6281 - accuracy: 0.6678
Epoch 62/100
77/77 [=====] - 0s 2ms/step - loss: 0.6264 - accuracy: 0.6678
Epoch 63/100
77/77 [=====] - 0s 3ms/step - loss: 0.6228 - accuracy: 0.6678
Epoch 64/100
77/77 [=====] - 0s 3ms/step - loss: 0.6279 - accuracy: 0.6678
Epoch 65/100
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77/77 [=====] - 0s 4ms/step - loss: 0.6341 - accuracy: 0.6678
Epoch 66/100
77/77 [=====] - 0s 4ms/step - loss: 0.6280 - accuracy: 0.6678
Epoch 67/100
77/77 [=====] - 0s 4ms/step - loss: 0.6271 - accuracy: 0.6678
Epoch 68/100
77/77 [=====] - 0s 2ms/step - loss: 0.6301 - accuracy: 0.6678
Epoch 69/100
77/77 [=====] - 0s 4ms/step - loss: 0.6276 - accuracy: 0.6678
Epoch 70/100
77/77 [=====] - 0s 3ms/step - loss: 0.6343 - accuracy: 0.6678
Epoch 71/100
77/77 [=====] - 0s 2ms/step - loss: 0.6277 - accuracy: 0.6678
Epoch 72/100
77/77 [=====] - 0s 2ms/step - loss: 0.6292 - accuracy: 0.6678
Epoch 73/100
77/77 [=====] - 0s 3ms/step - loss: 0.6258 - accuracy: 0.6678
Epoch 74/100
77/77 [=====] - 0s 3ms/step - loss: 0.6275 - accuracy: 0.6678
Epoch 75/100
77/77 [=====] - 0s 2ms/step - loss: 0.6329 - accuracy: 0.6678
Epoch 76/100
77/77 [=====] - 0s 2ms/step - loss: 0.6262 - accuracy: 0.6678
Epoch 77/100
77/77 [=====] - 0s 2ms/step - loss: 0.6250 - accuracy: 0.6678
Epoch 78/100
77/77 [=====] - 0s 3ms/step - loss: 0.6255 - accuracy: 0.6678
Epoch 79/100
77/77 [=====] - 0s 3ms/step - loss: 0.6328 - accuracy: 0.6678
Epoch 80/100
77/77 [=====] - 0s 2ms/step - loss: 0.6281 - accuracy: 0.6678
Epoch 81/100
77/77 [=====] - 0s 2ms/step - loss: 0.6244 - accuracy: 0.6678
Epoch 82/100
77/77 [=====] - 0s 2ms/step - loss: 0.6350 - accuracy: 0.6678
Epoch 83/100
77/77 [=====] - 0s 2ms/step - loss: 0.6290 - accuracy: 0.6678
Epoch 84/100
77/77 [=====] - 0s 3ms/step - loss: 0.6282 - accuracy: 0.6678
Epoch 85/100
77/77 [=====] - 0s 2ms/step - loss: 0.6309 - accuracy: 0.6678
Epoch 86/100
77/77 [=====] - 0s 3ms/step - loss: 0.6266 - accuracy: 0.6678
Epoch 87/100
77/77 [=====] - 0s 2ms/step - loss: 0.6268 - accuracy: 0.6678
Epoch 88/100
77/77 [=====] - 0s 2ms/step - loss: 0.6281 - accuracy: 0.6678
Epoch 89/100
77/77 [=====] - 0s 2ms/step - loss: 0.6333 - accuracy: 0.6678
Epoch 90/100
77/77 [=====] - 0s 2ms/step - loss: 0.6220 - accuracy: 0.6678
Epoch 91/100
77/77 [=====] - 0s 2ms/step - loss: 0.6310 - accuracy: 0.6678
Epoch 92/100
77/77 [=====] - 0s 2ms/step - loss: 0.6293 - accuracy: 0.6678
Epoch 93/100
77/77 [=====] - 0s 3ms/step - loss: 0.6352 - accuracy: 0.6678
Epoch 94/100
77/77 [=====] - 0s 2ms/step - loss: 0.6282 - accuracy: 0.6678
Epoch 95/100
77/77 [=====] - 0s 3ms/step - loss: 0.6303 - accuracy: 0.6678
Epoch 96/100
77/77 [=====] - 0s 2ms/step - loss: 0.6234 - accuracy: 0.6678
Epoch 97/100
77/77 [=====] - 0s 2ms/step - loss: 0.6284 - accuracy: 0.6678
Epoch 98/100
77/77 [=====] - 0s 2ms/step - loss: 0.6356 - accuracy: 0.6678
Epoch 99/100
77/77 [=====] - 0s 2ms/step - loss: 0.6217 - accuracy: 0.6678
Epoch 100/100
77/77 [=====] - 0s 3ms/step - loss: 0.6249 - accuracy: 0.6678
20/20 [=====] - 0s 2ms/step - loss: 0.6987 - accuracy: 0.5844
Epoch 1/100
77/77 [=====] - 1s 2ms/step - loss: 6.4745 - accuracy: 0.6401
Epoch 2/100
77/77 [=====] - 0s 2ms/step - loss: 1.5554 - accuracy: 0.6580
Epoch 3/100
77/77 [=====] - 0s 2ms/step - loss: 0.8579 - accuracy: 0.6564
Epoch 4/100
77/77 [=====] - 0s 2ms/step - loss: 0.7072 - accuracy: 0.6564
Epoch 5/100
77/77 [=====] - 0s 2ms/step - loss: 0.6702 - accuracy: 0.6564
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Epoch 6/100
77/77 [=====] - 0s 2ms/step - loss: 0.6607 - accuracy: 0.6564
Epoch 7/100
77/77 [=====] - 0s 2ms/step - loss: 0.6555 - accuracy: 0.6564
Epoch 8/100
77/77 [=====] - 0s 2ms/step - loss: 0.6527 - accuracy: 0.6564
Epoch 9/100
77/77 [=====] - 0s 2ms/step - loss: 0.6499 - accuracy: 0.6564
Epoch 10/100
77/77 [=====] - 0s 2ms/step - loss: 0.6481 - accuracy: 0.6564
Epoch 11/100
77/77 [=====] - 0s 2ms/step - loss: 0.6466 - accuracy: 0.6564
Epoch 12/100
77/77 [=====] - 0s 2ms/step - loss: 0.6453 - accuracy: 0.6564
Epoch 13/100
77/77 [=====] - 0s 2ms/step - loss: 0.6449 - accuracy: 0.6564
Epoch 14/100
77/77 [=====] - 0s 2ms/step - loss: 0.6430 - accuracy: 0.6580
Epoch 15/100
77/77 [=====] - 0s 2ms/step - loss: 0.6427 - accuracy: 0.6547
Epoch 16/100
77/77 [=====] - 0s 2ms/step - loss: 0.6426 - accuracy: 0.6547
Epoch 17/100
77/77 [=====] - 0s 2ms/step - loss: 0.6393 - accuracy: 0.6645
Epoch 18/100
77/77 [=====] - 0s 2ms/step - loss: 0.6415 - accuracy: 0.6547
Epoch 19/100
77/77 [=====] - 0s 2ms/step - loss: 0.6408 - accuracy: 0.6531
Epoch 20/100
77/77 [=====] - 0s 2ms/step - loss: 0.6391 - accuracy: 0.6547
Epoch 21/100
77/77 [=====] - 0s 2ms/step - loss: 0.6395 - accuracy: 0.6515
Epoch 22/100
77/77 [=====] - 0s 2ms/step - loss: 0.6365 - accuracy: 0.6612
Epoch 23/100
77/77 [=====] - 0s 2ms/step - loss: 0.6423 - accuracy: 0.6612
Epoch 24/100
77/77 [=====] - 0s 3ms/step - loss: 0.6375 - accuracy: 0.6515
Epoch 25/100
77/77 [=====] - 0s 3ms/step - loss: 0.6391 - accuracy: 0.6498
Epoch 26/100
77/77 [=====] - 0s 4ms/step - loss: 0.6383 - accuracy: 0.6482
Epoch 27/100
77/77 [=====] - 0s 3ms/step - loss: 0.6344 - accuracy: 0.6612
Epoch 28/100
77/77 [=====] - 0s 3ms/step - loss: 0.6373 - accuracy: 0.6612
Epoch 29/100
77/77 [=====] - 0s 2ms/step - loss: 0.6355 - accuracy: 0.6678
Epoch 30/100
77/77 [=====] - 0s 2ms/step - loss: 0.6374 - accuracy: 0.6482
Epoch 31/100
77/77 [=====] - 0s 3ms/step - loss: 0.6367 - accuracy: 0.6645
Epoch 32/100
77/77 [=====] - 0s 3ms/step - loss: 0.6355 - accuracy: 0.6531
Epoch 33/100
77/77 [=====] - 0s 2ms/step - loss: 0.6291 - accuracy: 0.6710
Epoch 34/100
77/77 [=====] - 0s 3ms/step - loss: 0.6316 - accuracy: 0.6710
Epoch 35/100
77/77 [=====] - 0s 3ms/step - loss: 0.6349 - accuracy: 0.6596
Epoch 36/100
77/77 [=====] - 0s 3ms/step - loss: 0.6334 - accuracy: 0.6645
Epoch 37/100
77/77 [=====] - 0s 3ms/step - loss: 0.6371 - accuracy: 0.6531
Epoch 38/100
77/77 [=====] - 0s 3ms/step - loss: 0.6333 - accuracy: 0.6710
Epoch 39/100
77/77 [=====] - 0s 3ms/step - loss: 0.6358 - accuracy: 0.6629
Epoch 40/100
77/77 [=====] - 0s 5ms/step - loss: 0.6337 - accuracy: 0.6710
Epoch 41/100
77/77 [=====] - 0s 2ms/step - loss: 0.6309 - accuracy: 0.6596
Epoch 42/100
77/77 [=====] - 0s 2ms/step - loss: 0.6368 - accuracy: 0.6580
Epoch 43/100
77/77 [=====] - 0s 2ms/step - loss: 0.6340 - accuracy: 0.6580
Epoch 44/100
77/77 [=====] - 0s 2ms/step - loss: 0.6361 - accuracy: 0.6645
Epoch 45/100
77/77 [=====] - 0s 4ms/step - loss: 0.6279 - accuracy: 0.6792
Epoch 46/100
77/77 [=====] - 0s 3ms/step - loss: 0.6328 - accuracy: 0.6726

Epoch 47/100
77/77 [=====] - 0s 3ms/step - loss: 0.6394 - accuracy: 0.6629
Epoch 48/100
77/77 [=====] - 0s 3ms/step - loss: 0.6387 - accuracy: 0.6612
Epoch 49/100
77/77 [=====] - 0s 2ms/step - loss: 0.6342 - accuracy: 0.6743
Epoch 50/100
77/77 [=====] - 0s 2ms/step - loss: 0.6356 - accuracy: 0.6694
Epoch 51/100
77/77 [=====] - 0s 2ms/step - loss: 0.6372 - accuracy: 0.6564
Epoch 52/100
77/77 [=====] - 0s 3ms/step - loss: 0.6330 - accuracy: 0.6580
Epoch 53/100
77/77 [=====] - 0s 2ms/step - loss: 0.6346 - accuracy: 0.6678
Epoch 54/100
77/77 [=====] - 0s 2ms/step - loss: 0.6399 - accuracy: 0.6531
Epoch 55/100
77/77 [=====] - 0s 2ms/step - loss: 0.6335 - accuracy: 0.6564
Epoch 56/100
77/77 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6743
Epoch 57/100
77/77 [=====] - 0s 3ms/step - loss: 0.6353 - accuracy: 0.6694
Epoch 58/100
77/77 [=====] - 0s 3ms/step - loss: 0.6248 - accuracy: 0.6547
Epoch 59/100
77/77 [=====] - 0s 2ms/step - loss: 0.6323 - accuracy: 0.6645
Epoch 60/100
77/77 [=====] - 0s 2ms/step - loss: 0.6361 - accuracy: 0.6564
Epoch 61/100
77/77 [=====] - 0s 2ms/step - loss: 0.6233 - accuracy: 0.6775
Epoch 62/100
77/77 [=====] - 0s 2ms/step - loss: 0.6303 - accuracy: 0.6694
Epoch 63/100
77/77 [=====] - 0s 2ms/step - loss: 0.6311 - accuracy: 0.6710
Epoch 64/100
77/77 [=====] - 0s 2ms/step - loss: 0.6299 - accuracy: 0.6726
Epoch 65/100
77/77 [=====] - 0s 2ms/step - loss: 0.6325 - accuracy: 0.6661
Epoch 66/100
77/77 [=====] - 0s 3ms/step - loss: 0.6346 - accuracy: 0.6580
Epoch 67/100
77/77 [=====] - 0s 2ms/step - loss: 0.6346 - accuracy: 0.6645
Epoch 68/100
77/77 [=====] - 0s 2ms/step - loss: 0.6305 - accuracy: 0.6678
Epoch 69/100
77/77 [=====] - 0s 3ms/step - loss: 0.6318 - accuracy: 0.6743
Epoch 70/100
77/77 [=====] - 0s 2ms/step - loss: 0.6363 - accuracy: 0.6612
Epoch 71/100
77/77 [=====] - 0s 3ms/step - loss: 0.6284 - accuracy: 0.6824
Epoch 72/100
77/77 [=====] - 0s 2ms/step - loss: 0.6312 - accuracy: 0.6743
Epoch 73/100
77/77 [=====] - 0s 3ms/step - loss: 0.6340 - accuracy: 0.6645
Epoch 74/100
77/77 [=====] - 0s 2ms/step - loss: 0.6329 - accuracy: 0.6482
Epoch 75/100
77/77 [=====] - 0s 3ms/step - loss: 0.6301 - accuracy: 0.6694
Epoch 76/100
77/77 [=====] - 0s 3ms/step - loss: 0.6345 - accuracy: 0.6710
Epoch 77/100
77/77 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6515
Epoch 78/100
77/77 [=====] - 0s 2ms/step - loss: 0.6255 - accuracy: 0.6824
Epoch 79/100
77/77 [=====] - 0s 2ms/step - loss: 0.6283 - accuracy: 0.6710
Epoch 80/100
77/77 [=====] - 0s 2ms/step - loss: 0.6361 - accuracy: 0.6482
Epoch 81/100
77/77 [=====] - 0s 2ms/step - loss: 0.6272 - accuracy: 0.6726
Epoch 82/100
77/77 [=====] - 0s 1ms/step - loss: 0.6341 - accuracy: 0.6645
Epoch 83/100
77/77 [=====] - 0s 2ms/step - loss: 0.6391 - accuracy: 0.6694
Epoch 84/100
77/77 [=====] - 0s 1ms/step - loss: 0.6317 - accuracy: 0.6824
Epoch 85/100
77/77 [=====] - 0s 2ms/step - loss: 0.6266 - accuracy: 0.6645
Epoch 86/100
77/77 [=====] - 0s 2ms/step - loss: 0.6327 - accuracy: 0.6743
Epoch 87/100
77/77 [=====] - 0s 2ms/step - loss: 0.6283 - accuracy: 0.6694

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Epoch 88/100
77/77 [=====] - 0s 2ms/step - loss: 0.6332 - accuracy: 0.6564
Epoch 89/100
77/77 [=====] - 0s 2ms/step - loss: 0.6248 - accuracy: 0.6726
Epoch 90/100
77/77 [=====] - 0s 2ms/step - loss: 0.6279 - accuracy: 0.6694
Epoch 91/100
77/77 [=====] - 0s 2ms/step - loss: 0.6331 - accuracy: 0.6678
Epoch 92/100
77/77 [=====] - 0s 3ms/step - loss: 0.6332 - accuracy: 0.6726
Epoch 93/100
77/77 [=====] - 0s 2ms/step - loss: 0.6240 - accuracy: 0.6792
Epoch 94/100
77/77 [=====] - 0s 3ms/step - loss: 0.6243 - accuracy: 0.6857
Epoch 95/100
77/77 [=====] - 0s 3ms/step - loss: 0.6248 - accuracy: 0.6775
Epoch 96/100
77/77 [=====] - 0s 2ms/step - loss: 0.6474 - accuracy: 0.6824
Epoch 97/100
77/77 [=====] - 0s 3ms/step - loss: 0.6470 - accuracy: 0.6661
Epoch 98/100
77/77 [=====] - 0s 2ms/step - loss: 0.6261 - accuracy: 0.6743
Epoch 99/100
77/77 [=====] - 0s 2ms/step - loss: 0.6365 - accuracy: 0.6661
Epoch 100/100
77/77 [=====] - 0s 4ms/step - loss: 0.6309 - accuracy: 0.6792
20/20 [=====] - 0s 1ms/step - loss: 0.6339 - accuracy: 0.6364
Epoch 1/100
77/77 [=====] - 1s 2ms/step - loss: 4.6192 - accuracy: 0.6081
Epoch 2/100
77/77 [=====] - 0s 2ms/step - loss: 1.4848 - accuracy: 0.6309
Epoch 3/100
77/77 [=====] - 0s 2ms/step - loss: 0.8504 - accuracy: 0.6293
Epoch 4/100
77/77 [=====] - 0s 2ms/step - loss: 0.7145 - accuracy: 0.6341
Epoch 5/100
77/77 [=====] - 0s 2ms/step - loss: 0.6820 - accuracy: 0.6276
Epoch 6/100
77/77 [=====] - 0s 3ms/step - loss: 0.6723 - accuracy: 0.6276
Epoch 7/100
77/77 [=====] - 0s 2ms/step - loss: 0.6678 - accuracy: 0.6276
Epoch 8/100
77/77 [=====] - 0s 2ms/step - loss: 0.6653 - accuracy: 0.6276
Epoch 9/100
77/77 [=====] - 0s 2ms/step - loss: 0.6636 - accuracy: 0.6276
Epoch 10/100
77/77 [=====] - 0s 2ms/step - loss: 0.6625 - accuracy: 0.6276
Epoch 11/100
77/77 [=====] - 0s 2ms/step - loss: 0.6617 - accuracy: 0.6276
Epoch 12/100
77/77 [=====] - 0s 2ms/step - loss: 0.6612 - accuracy: 0.6276
Epoch 13/100
77/77 [=====] - 0s 4ms/step - loss: 0.6608 - accuracy: 0.6276
Epoch 14/100
77/77 [=====] - 0s 2ms/step - loss: 0.6606 - accuracy: 0.6276
Epoch 15/100
77/77 [=====] - 0s 2ms/step - loss: 0.6604 - accuracy: 0.6276
Epoch 16/100
77/77 [=====] - 0s 2ms/step - loss: 0.6601 - accuracy: 0.6276
Epoch 17/100
77/77 [=====] - 0s 2ms/step - loss: 0.6602 - accuracy: 0.6276
Epoch 18/100
77/77 [=====] - 0s 2ms/step - loss: 0.6595 - accuracy: 0.6276
Epoch 19/100
77/77 [=====] - 0s 2ms/step - loss: 0.6602 - accuracy: 0.6276
Epoch 20/100
77/77 [=====] - 0s 2ms/step - loss: 0.6600 - accuracy: 0.6276
Epoch 21/100
77/77 [=====] - 0s 2ms/step - loss: 0.6600 - accuracy: 0.6276
Epoch 22/100
77/77 [=====] - 0s 2ms/step - loss: 0.6598 - accuracy: 0.6276
Epoch 23/100
77/77 [=====] - 0s 2ms/step - loss: 0.6597 - accuracy: 0.6276
Epoch 24/100
77/77 [=====] - 0s 2ms/step - loss: 0.6597 - accuracy: 0.6276
Epoch 25/100
77/77 [=====] - 0s 2ms/step - loss: 0.6597 - accuracy: 0.6276
Epoch 26/100
77/77 [=====] - 0s 2ms/step - loss: 0.6594 - accuracy: 0.6276
Epoch 27/100
77/77 [=====] - 0s 2ms/step - loss: 0.6596 - accuracy: 0.6276
Epoch 28/100
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77/77 [=====] - 0s 3ms/step - loss: 0.6597 - accuracy: 0.6276
Epoch 29/100
77/77 [=====] - 0s 4ms/step - loss: 0.6595 - accuracy: 0.6276
Epoch 30/100
77/77 [=====] - 0s 2ms/step - loss: 0.6597 - accuracy: 0.6276
Epoch 31/100
77/77 [=====] - 0s 2ms/step - loss: 0.6593 - accuracy: 0.6276
Epoch 32/100
77/77 [=====] - 0s 2ms/step - loss: 0.6594 - accuracy: 0.6276
Epoch 33/100
77/77 [=====] - 0s 2ms/step - loss: 0.6596 - accuracy: 0.6276
Epoch 34/100
77/77 [=====] - 0s 2ms/step - loss: 0.6593 - accuracy: 0.6276
Epoch 35/100
77/77 [=====] - 0s 2ms/step - loss: 0.6596 - accuracy: 0.6276
Epoch 36/100
77/77 [=====] - 0s 3ms/step - loss: 0.6595 - accuracy: 0.6276
Epoch 37/100
77/77 [=====] - 0s 2ms/step - loss: 0.6588 - accuracy: 0.6276
Epoch 38/100
77/77 [=====] - 0s 2ms/step - loss: 0.6594 - accuracy: 0.6276
Epoch 39/100
77/77 [=====] - 0s 3ms/step - loss: 0.6589 - accuracy: 0.6276
Epoch 40/100
77/77 [=====] - 0s 2ms/step - loss: 0.6592 - accuracy: 0.6276
Epoch 41/100
77/77 [=====] - 0s 2ms/step - loss: 0.6591 - accuracy: 0.6276
Epoch 42/100
77/77 [=====] - 0s 2ms/step - loss: 0.6595 - accuracy: 0.6276
Epoch 43/100
77/77 [=====] - 0s 2ms/step - loss: 0.6589 - accuracy: 0.6276
Epoch 44/100
77/77 [=====] - 0s 2ms/step - loss: 0.6583 - accuracy: 0.6276
Epoch 45/100
77/77 [=====] - 0s 2ms/step - loss: 0.6593 - accuracy: 0.6276
Epoch 46/100
77/77 [=====] - 0s 1ms/step - loss: 0.6586 - accuracy: 0.6276
Epoch 47/100
77/77 [=====] - 0s 2ms/step - loss: 0.6583 - accuracy: 0.6276
Epoch 48/100
77/77 [=====] - 0s 2ms/step - loss: 0.6590 - accuracy: 0.6276
Epoch 49/100
77/77 [=====] - 0s 2ms/step - loss: 0.6587 - accuracy: 0.6276
Epoch 50/100
77/77 [=====] - 0s 2ms/step - loss: 0.6584 - accuracy: 0.6276
Epoch 51/100
77/77 [=====] - 0s 2ms/step - loss: 0.6585 - accuracy: 0.6276
Epoch 52/100
77/77 [=====] - 0s 2ms/step - loss: 0.6585 - accuracy: 0.6276
Epoch 53/100
77/77 [=====] - 0s 2ms/step - loss: 0.6582 - accuracy: 0.6276
Epoch 54/100
77/77 [=====] - 0s 2ms/step - loss: 0.6581 - accuracy: 0.6276
Epoch 55/100
77/77 [=====] - 0s 3ms/step - loss: 0.6585 - accuracy: 0.6276
Epoch 56/100
77/77 [=====] - 0s 2ms/step - loss: 0.6585 - accuracy: 0.6276
Epoch 57/100
77/77 [=====] - 0s 2ms/step - loss: 0.6571 - accuracy: 0.6276
Epoch 58/100
77/77 [=====] - 0s 1ms/step - loss: 0.6574 - accuracy: 0.6276
Epoch 59/100
77/77 [=====] - 0s 2ms/step - loss: 0.6571 - accuracy: 0.6276
Epoch 60/100
77/77 [=====] - 0s 2ms/step - loss: 0.6566 - accuracy: 0.6276
Epoch 61/100
77/77 [=====] - 0s 1ms/step - loss: 0.6572 - accuracy: 0.6276
Epoch 62/100
77/77 [=====] - 0s 3ms/step - loss: 0.6568 - accuracy: 0.6276
Epoch 63/100
77/77 [=====] - 0s 3ms/step - loss: 0.6564 - accuracy: 0.6276
Epoch 64/100
77/77 [=====] - 0s 2ms/step - loss: 0.6569 - accuracy: 0.6276
Epoch 65/100
77/77 [=====] - 0s 2ms/step - loss: 0.6576 - accuracy: 0.6276
Epoch 66/100
77/77 [=====] - 0s 2ms/step - loss: 0.6565 - accuracy: 0.6276
Epoch 67/100
77/77 [=====] - 0s 2ms/step - loss: 0.6556 - accuracy: 0.6276
Epoch 68/100
77/77 [=====] - 0s 3ms/step - loss: 0.6559 - accuracy: 0.6276
Epoch 69/100
```



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77/77 [=====] - 0s 2ms/step - loss: 0.6562 - accuracy: 0.6276
Epoch 70/100
77/77 [=====] - 0s 2ms/step - loss: 0.6557 - accuracy: 0.6276
Epoch 71/100
77/77 [=====] - 0s 4ms/step - loss: 0.6547 - accuracy: 0.6276
Epoch 72/100
77/77 [=====] - 0s 2ms/step - loss: 0.6572 - accuracy: 0.6276
Epoch 73/100
77/77 [=====] - 0s 2ms/step - loss: 0.6555 - accuracy: 0.6276
Epoch 74/100
77/77 [=====] - 0s 2ms/step - loss: 0.6551 - accuracy: 0.6276
Epoch 75/100
77/77 [=====] - 0s 2ms/step - loss: 0.6564 - accuracy: 0.6276
Epoch 76/100
77/77 [=====] - 0s 2ms/step - loss: 0.6557 - accuracy: 0.6276
Epoch 77/100
77/77 [=====] - 0s 1ms/step - loss: 0.6554 - accuracy: 0.6276
Epoch 78/100
77/77 [=====] - 0s 2ms/step - loss: 0.6557 - accuracy: 0.6276
Epoch 79/100
77/77 [=====] - 0s 2ms/step - loss: 0.6542 - accuracy: 0.6276
Epoch 80/100
77/77 [=====] - 0s 2ms/step - loss: 0.6573 - accuracy: 0.6276
Epoch 81/100
77/77 [=====] - 0s 2ms/step - loss: 0.6558 - accuracy: 0.6276
Epoch 82/100
77/77 [=====] - 0s 3ms/step - loss: 0.6558 - accuracy: 0.6276
Epoch 83/100
77/77 [=====] - 0s 2ms/step - loss: 0.6554 - accuracy: 0.6276
Epoch 84/100
77/77 [=====] - 0s 2ms/step - loss: 0.6548 - accuracy: 0.6276
Epoch 85/100
77/77 [=====] - 0s 2ms/step - loss: 0.6562 - accuracy: 0.6276
Epoch 86/100
77/77 [=====] - 0s 2ms/step - loss: 0.6521 - accuracy: 0.6276
Epoch 87/100
77/77 [=====] - 0s 2ms/step - loss: 0.6560 - accuracy: 0.6276
Epoch 88/100
77/77 [=====] - 0s 2ms/step - loss: 0.6543 - accuracy: 0.6276
Epoch 89/100
77/77 [=====] - 0s 2ms/step - loss: 0.6536 - accuracy: 0.6276
Epoch 90/100
77/77 [=====] - 0s 2ms/step - loss: 0.6562 - accuracy: 0.6276
Epoch 91/100
77/77 [=====] - 0s 2ms/step - loss: 0.6534 - accuracy: 0.6276
Epoch 92/100
77/77 [=====] - 0s 2ms/step - loss: 0.6536 - accuracy: 0.6276
Epoch 93/100
77/77 [=====] - 0s 2ms/step - loss: 0.6565 - accuracy: 0.6276
Epoch 94/100
77/77 [=====] - 0s 2ms/step - loss: 0.6549 - accuracy: 0.6276
Epoch 95/100
77/77 [=====] - 0s 2ms/step - loss: 0.6523 - accuracy: 0.6276
Epoch 96/100
77/77 [=====] - 0s 2ms/step - loss: 0.6547 - accuracy: 0.6276
Epoch 97/100
77/77 [=====] - 0s 2ms/step - loss: 0.6531 - accuracy: 0.6276
Epoch 98/100
77/77 [=====] - 0s 2ms/step - loss: 0.6528 - accuracy: 0.6276
Epoch 99/100
77/77 [=====] - 0s 2ms/step - loss: 0.6535 - accuracy: 0.6276
Epoch 100/100
77/77 [=====] - 0s 2ms/step - loss: 0.6536 - accuracy: 0.6276
20/20 [=====] - 0s 1ms/step - loss: 0.5679 - accuracy: 0.7451
Epoch 1/100
77/77 [=====] - 1s 2ms/step - loss: 5.6594 - accuracy: 0.5870
Epoch 2/100
77/77 [=====] - 0s 2ms/step - loss: 1.5677 - accuracy: 0.6520
Epoch 3/100
77/77 [=====] - 0s 2ms/step - loss: 0.8561 - accuracy: 0.6520
Epoch 4/100
77/77 [=====] - 0s 2ms/step - loss: 0.7121 - accuracy: 0.6520
Epoch 5/100
77/77 [=====] - 0s 2ms/step - loss: 0.6724 - accuracy: 0.6520
Epoch 6/100
77/77 [=====] - 0s 3ms/step - loss: 0.6574 - accuracy: 0.6520
Epoch 7/100
77/77 [=====] - 0s 2ms/step - loss: 0.6590 - accuracy: 0.6520
Epoch 8/100
77/77 [=====] - 0s 2ms/step - loss: 0.6501 - accuracy: 0.6520
Epoch 9/100
77/77 [=====] - 0s 2ms/step - loss: 0.6503 - accuracy: 0.6520
```

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Epoch 10/100
77/77 [=====] - 0s 2ms/step - loss: 0.6497 - accuracy: 0.6520
Epoch 11/100
77/77 [=====] - 0s 2ms/step - loss: 0.6453 - accuracy: 0.6520
Epoch 12/100
77/77 [=====] - 0s 2ms/step - loss: 0.6471 - accuracy: 0.6520
Epoch 13/100
77/77 [=====] - 0s 1ms/step - loss: 0.6455 - accuracy: 0.6520
Epoch 14/100
77/77 [=====] - 0s 2ms/step - loss: 0.6457 - accuracy: 0.6520
Epoch 15/100
77/77 [=====] - 0s 2ms/step - loss: 0.6447 - accuracy: 0.6520
Epoch 16/100
77/77 [=====] - 0s 2ms/step - loss: 0.6413 - accuracy: 0.6520
Epoch 17/100
77/77 [=====] - 0s 1ms/step - loss: 0.6417 - accuracy: 0.6520
Epoch 18/100
77/77 [=====] - 0s 2ms/step - loss: 0.6414 - accuracy: 0.6520
Epoch 19/100
77/77 [=====] - 0s 2ms/step - loss: 0.6402 - accuracy: 0.6520
Epoch 20/100
77/77 [=====] - 0s 1ms/step - loss: 0.6399 - accuracy: 0.6520
Epoch 21/100
77/77 [=====] - 0s 3ms/step - loss: 0.6431 - accuracy: 0.6520
Epoch 22/100
77/77 [=====] - 0s 2ms/step - loss: 0.6376 - accuracy: 0.6520
Epoch 23/100
77/77 [=====] - 0s 2ms/step - loss: 0.6387 - accuracy: 0.6520
Epoch 24/100
77/77 [=====] - 0s 2ms/step - loss: 0.6351 - accuracy: 0.6520
Epoch 25/100
77/77 [=====] - 0s 1ms/step - loss: 0.6389 - accuracy: 0.6537
Epoch 26/100
77/77 [=====] - 0s 2ms/step - loss: 0.6374 - accuracy: 0.6569
Epoch 27/100
77/77 [=====] - 0s 2ms/step - loss: 0.6366 - accuracy: 0.6504
Epoch 28/100
77/77 [=====] - 0s 2ms/step - loss: 0.6354 - accuracy: 0.6504
Epoch 29/100
77/77 [=====] - 0s 2ms/step - loss: 0.6330 - accuracy: 0.6585
Epoch 30/100
77/77 [=====] - 0s 1ms/step - loss: 0.6441 - accuracy: 0.6537
Epoch 31/100
77/77 [=====] - 0s 2ms/step - loss: 0.6341 - accuracy: 0.6537
Epoch 32/100
77/77 [=====] - 0s 2ms/step - loss: 0.6341 - accuracy: 0.6618
Epoch 33/100
77/77 [=====] - 0s 2ms/step - loss: 0.6360 - accuracy: 0.6650
Epoch 34/100
77/77 [=====] - 0s 2ms/step - loss: 0.6311 - accuracy: 0.6650
Epoch 35/100
77/77 [=====] - 0s 1ms/step - loss: 0.6334 - accuracy: 0.6569
Epoch 36/100
77/77 [=====] - 0s 2ms/step - loss: 0.6347 - accuracy: 0.6650
Epoch 37/100
77/77 [=====] - 0s 2ms/step - loss: 0.6303 - accuracy: 0.6748
Epoch 38/100
77/77 [=====] - 0s 2ms/step - loss: 0.6383 - accuracy: 0.6667
Epoch 39/100
77/77 [=====] - 0s 2ms/step - loss: 0.6352 - accuracy: 0.6683
Epoch 40/100
77/77 [=====] - 0s 2ms/step - loss: 0.6330 - accuracy: 0.6569
Epoch 41/100
77/77 [=====] - 0s 2ms/step - loss: 0.6367 - accuracy: 0.6618
Epoch 42/100
77/77 [=====] - 0s 1ms/step - loss: 0.6340 - accuracy: 0.6569
Epoch 43/100
77/77 [=====] - 0s 2ms/step - loss: 0.6346 - accuracy: 0.6764
Epoch 44/100
77/77 [=====] - 0s 2ms/step - loss: 0.6266 - accuracy: 0.6537
Epoch 45/100
77/77 [=====] - 0s 2ms/step - loss: 0.6344 - accuracy: 0.6520
Epoch 46/100
77/77 [=====] - 0s 2ms/step - loss: 0.6481 - accuracy: 0.6683
Epoch 47/100
77/77 [=====] - 0s 1ms/step - loss: 0.6345 - accuracy: 0.6667
Epoch 48/100
77/77 [=====] - 0s 2ms/step - loss: 0.6327 - accuracy: 0.6537
Epoch 49/100
77/77 [=====] - 0s 2ms/step - loss: 0.6402 - accuracy: 0.6667
Epoch 50/100
77/77 [=====] - 0s 1ms/step - loss: 0.6329 - accuracy: 0.6764
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Epoch 51/100
77/77 [=====] - 0s 2ms/step - loss: 0.6303 - accuracy: 0.6748
Epoch 52/100
77/77 [=====] - 0s 2ms/step - loss: 0.6307 - accuracy: 0.6569
Epoch 53/100
77/77 [=====] - 0s 1ms/step - loss: 0.6525 - accuracy: 0.6683
Epoch 54/100
77/77 [=====] - 0s 3ms/step - loss: 0.6284 - accuracy: 0.6585
Epoch 55/100
77/77 [=====] - 0s 2ms/step - loss: 0.6364 - accuracy: 0.6732
Epoch 56/100
77/77 [=====] - 0s 1ms/step - loss: 0.6325 - accuracy: 0.6813
Epoch 57/100
77/77 [=====] - 0s 2ms/step - loss: 0.6458 - accuracy: 0.6439
Epoch 58/100
77/77 [=====] - 0s 3ms/step - loss: 0.6355 - accuracy: 0.6520
Epoch 59/100
77/77 [=====] - 0s 2ms/step - loss: 0.6340 - accuracy: 0.6520
Epoch 60/100
77/77 [=====] - 0s 1ms/step - loss: 0.6392 - accuracy: 0.6520
Epoch 61/100
77/77 [=====] - 0s 2ms/step - loss: 0.6394 - accuracy: 0.6520
Epoch 62/100
77/77 [=====] - 0s 1ms/step - loss: 0.6337 - accuracy: 0.6520
Epoch 63/100
77/77 [=====] - 0s 2ms/step - loss: 0.6372 - accuracy: 0.6520
Epoch 64/100
77/77 [=====] - 0s 1ms/step - loss: 0.6300 - accuracy: 0.6520
Epoch 65/100
77/77 [=====] - 0s 2ms/step - loss: 0.6335 - accuracy: 0.6520
Epoch 66/100
77/77 [=====] - 0s 2ms/step - loss: 0.6351 - accuracy: 0.6520
Epoch 67/100
77/77 [=====] - 0s 1ms/step - loss: 0.6308 - accuracy: 0.6520
Epoch 68/100
77/77 [=====] - 0s 2ms/step - loss: 0.6378 - accuracy: 0.6520
Epoch 69/100
77/77 [=====] - 0s 2ms/step - loss: 0.6431 - accuracy: 0.6520
Epoch 70/100
77/77 [=====] - 0s 2ms/step - loss: 0.6320 - accuracy: 0.6520
Epoch 71/100
77/77 [=====] - 0s 1ms/step - loss: 0.6397 - accuracy: 0.6520
Epoch 72/100
77/77 [=====] - 0s 2ms/step - loss: 0.6377 - accuracy: 0.6520
Epoch 73/100
77/77 [=====] - 0s 3ms/step - loss: 0.6388 - accuracy: 0.6520
Epoch 74/100
77/77 [=====] - 0s 2ms/step - loss: 0.6401 - accuracy: 0.6520
Epoch 75/100
77/77 [=====] - 0s 2ms/step - loss: 0.6373 - accuracy: 0.6520
Epoch 76/100
77/77 [=====] - 0s 2ms/step - loss: 0.6398 - accuracy: 0.6520
Epoch 77/100
77/77 [=====] - 0s 2ms/step - loss: 0.6331 - accuracy: 0.6520
Epoch 78/100
77/77 [=====] - 0s 2ms/step - loss: 0.6338 - accuracy: 0.6520
Epoch 79/100
77/77 [=====] - 0s 2ms/step - loss: 0.6366 - accuracy: 0.6520
Epoch 80/100
77/77 [=====] - 0s 1ms/step - loss: 0.6294 - accuracy: 0.6520
Epoch 81/100
77/77 [=====] - 0s 2ms/step - loss: 0.6322 - accuracy: 0.6520
Epoch 82/100
77/77 [=====] - 0s 2ms/step - loss: 0.6372 - accuracy: 0.6520
Epoch 83/100
77/77 [=====] - 0s 1ms/step - loss: 0.6276 - accuracy: 0.6520
Epoch 84/100
77/77 [=====] - 0s 2ms/step - loss: 0.6305 - accuracy: 0.6520
Epoch 85/100
77/77 [=====] - 0s 2ms/step - loss: 0.6454 - accuracy: 0.6520
Epoch 86/100
77/77 [=====] - 0s 1ms/step - loss: 0.6366 - accuracy: 0.6520
Epoch 87/100
77/77 [=====] - 0s 2ms/step - loss: 0.6343 - accuracy: 0.6520
Epoch 88/100
77/77 [=====] - 0s 2ms/step - loss: 0.6336 - accuracy: 0.6520
Epoch 89/100
77/77 [=====] - 0s 3ms/step - loss: 0.6443 - accuracy: 0.6520
Epoch 90/100
77/77 [=====] - 0s 2ms/step - loss: 0.6323 - accuracy: 0.6520
Epoch 91/100
77/77 [=====] - 0s 1ms/step - loss: 0.6415 - accuracy: 0.6520
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Epoch 92/100
77/77 [=====] - 0s 2ms/step - loss: 0.6364 - accuracy: 0.6520
Epoch 93/100
77/77 [=====] - 0s 2ms/step - loss: 0.6392 - accuracy: 0.6520
Epoch 94/100
77/77 [=====] - 0s 2ms/step - loss: 0.6250 - accuracy: 0.6520
Epoch 95/100
77/77 [=====] - 0s 2ms/step - loss: 0.6393 - accuracy: 0.6520
Epoch 96/100
77/77 [=====] - 0s 2ms/step - loss: 0.6428 - accuracy: 0.6520
Epoch 97/100
77/77 [=====] - 0s 3ms/step - loss: 0.6298 - accuracy: 0.6520
Epoch 98/100
77/77 [=====] - 0s 2ms/step - loss: 0.6373 - accuracy: 0.6520
Epoch 99/100
77/77 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6520
Epoch 100/100
77/77 [=====] - 0s 2ms/step - loss: 0.6448 - accuracy: 0.6520
20/20 [=====] - 0s 1ms/step - loss: 0.6664 - accuracy: 0.6471
Epoch 1/100
77/77 [=====] - 1s 1ms/step - loss: 2.8459 - accuracy: 0.5863
Epoch 2/100
77/77 [=====] - 0s 2ms/step - loss: 1.5983 - accuracy: 0.6466
Epoch 3/100
77/77 [=====] - 0s 2ms/step - loss: 1.3419 - accuracy: 0.6482
Epoch 4/100
77/77 [=====] - 0s 1ms/step - loss: 1.1517 - accuracy: 0.6515
Epoch 5/100
77/77 [=====] - 0s 2ms/step - loss: 1.0184 - accuracy: 0.6433
Epoch 6/100
77/77 [=====] - 0s 1ms/step - loss: 0.9136 - accuracy: 0.6482
Epoch 7/100
77/77 [=====] - 0s 2ms/step - loss: 0.8382 - accuracy: 0.6515
Epoch 8/100
77/77 [=====] - 0s 2ms/step - loss: 0.7813 - accuracy: 0.6531
Epoch 9/100
77/77 [=====] - 0s 2ms/step - loss: 0.7444 - accuracy: 0.6515
Epoch 10/100
77/77 [=====] - 0s 2ms/step - loss: 0.7243 - accuracy: 0.6531
Epoch 11/100
77/77 [=====] - 0s 2ms/step - loss: 0.6990 - accuracy: 0.6498
Epoch 12/100
77/77 [=====] - 0s 2ms/step - loss: 0.6890 - accuracy: 0.6498
Epoch 13/100
77/77 [=====] - 0s 3ms/step - loss: 0.6751 - accuracy: 0.6482
Epoch 14/100
77/77 [=====] - 0s 2ms/step - loss: 0.6657 - accuracy: 0.6498
Epoch 15/100
77/77 [=====] - 0s 2ms/step - loss: 0.6655 - accuracy: 0.6564
Epoch 16/100
77/77 [=====] - 0s 1ms/step - loss: 0.6536 - accuracy: 0.6515
Epoch 17/100
77/77 [=====] - 0s 2ms/step - loss: 0.6503 - accuracy: 0.6531
Epoch 18/100
77/77 [=====] - 0s 2ms/step - loss: 0.6529 - accuracy: 0.6466
Epoch 19/100
77/77 [=====] - 0s 2ms/step - loss: 0.6447 - accuracy: 0.6450
Epoch 20/100
77/77 [=====] - 0s 2ms/step - loss: 0.6432 - accuracy: 0.6645
Epoch 21/100
77/77 [=====] - 0s 3ms/step - loss: 0.6372 - accuracy: 0.6564
Epoch 22/100
77/77 [=====] - 0s 2ms/step - loss: 0.6462 - accuracy: 0.6531
Epoch 23/100
77/77 [=====] - 0s 2ms/step - loss: 0.6434 - accuracy: 0.6531
Epoch 24/100
77/77 [=====] - 0s 2ms/step - loss: 0.6413 - accuracy: 0.6498
Epoch 25/100
77/77 [=====] - 0s 2ms/step - loss: 0.6470 - accuracy: 0.6564
Epoch 26/100
77/77 [=====] - 0s 2ms/step - loss: 0.6415 - accuracy: 0.6547
Epoch 27/100
77/77 [=====] - 0s 2ms/step - loss: 0.6455 - accuracy: 0.6498
Epoch 28/100
77/77 [=====] - 0s 2ms/step - loss: 0.6441 - accuracy: 0.6564
Epoch 29/100
77/77 [=====] - 0s 2ms/step - loss: 0.6438 - accuracy: 0.6482
Epoch 30/100
77/77 [=====] - 0s 2ms/step - loss: 0.6460 - accuracy: 0.6531
Epoch 31/100
77/77 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6515
Epoch 32/100
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77/77 [=====] - 0s 2ms/step - loss: 0.6400 - accuracy: 0.6498
Epoch 33/100
77/77 [=====] - 0s 2ms/step - loss: 0.6448 - accuracy: 0.6564
Epoch 34/100
77/77 [=====] - 0s 2ms/step - loss: 0.6420 - accuracy: 0.6515
Epoch 35/100
77/77 [=====] - 0s 2ms/step - loss: 0.6433 - accuracy: 0.6515
Epoch 36/100
77/77 [=====] - 0s 2ms/step - loss: 0.6336 - accuracy: 0.6612
Epoch 37/100
77/77 [=====] - 0s 2ms/step - loss: 0.6413 - accuracy: 0.6645
Epoch 38/100
77/77 [=====] - 0s 2ms/step - loss: 0.6429 - accuracy: 0.6547
Epoch 39/100
77/77 [=====] - 0s 3ms/step - loss: 0.6304 - accuracy: 0.6645
Epoch 40/100
77/77 [=====] - 0s 2ms/step - loss: 0.6390 - accuracy: 0.6678
Epoch 41/100
77/77 [=====] - 0s 2ms/step - loss: 0.6296 - accuracy: 0.6840
Epoch 42/100
77/77 [=====] - 0s 2ms/step - loss: 0.6379 - accuracy: 0.6792
Epoch 43/100
77/77 [=====] - 0s 1ms/step - loss: 0.6331 - accuracy: 0.6726
Epoch 44/100
77/77 [=====] - 0s 2ms/step - loss: 0.6356 - accuracy: 0.6759
Epoch 45/100
77/77 [=====] - 0s 3ms/step - loss: 0.6326 - accuracy: 0.6824
Epoch 46/100
77/77 [=====] - 0s 2ms/step - loss: 0.6280 - accuracy: 0.6759
Epoch 47/100
77/77 [=====] - 0s 2ms/step - loss: 0.6266 - accuracy: 0.7020
Epoch 48/100
77/77 [=====] - 0s 2ms/step - loss: 0.6219 - accuracy: 0.6954
Epoch 49/100
77/77 [=====] - 0s 2ms/step - loss: 0.6312 - accuracy: 0.6645
Epoch 50/100
77/77 [=====] - 0s 2ms/step - loss: 0.6270 - accuracy: 0.6840
Epoch 51/100
77/77 [=====] - 0s 2ms/step - loss: 0.6246 - accuracy: 0.6938
Epoch 52/100
77/77 [=====] - 0s 2ms/step - loss: 0.6263 - accuracy: 0.6792
Epoch 53/100
77/77 [=====] - 0s 2ms/step - loss: 0.6261 - accuracy: 0.6857
Epoch 54/100
77/77 [=====] - 0s 1ms/step - loss: 0.6292 - accuracy: 0.6792
Epoch 55/100
77/77 [=====] - 0s 2ms/step - loss: 0.6172 - accuracy: 0.7020
Epoch 56/100
77/77 [=====] - 0s 2ms/step - loss: 0.6221 - accuracy: 0.6824
Epoch 57/100
77/77 [=====] - 0s 1ms/step - loss: 0.6206 - accuracy: 0.6824
Epoch 58/100
77/77 [=====] - 0s 2ms/step - loss: 0.6136 - accuracy: 0.6906
Epoch 59/100
77/77 [=====] - 0s 2ms/step - loss: 0.6173 - accuracy: 0.6922
Epoch 60/100
77/77 [=====] - 0s 3ms/step - loss: 0.6170 - accuracy: 0.6873
Epoch 61/100
77/77 [=====] - 0s 2ms/step - loss: 0.6235 - accuracy: 0.6857
Epoch 62/100
77/77 [=====] - 0s 2ms/step - loss: 0.6184 - accuracy: 0.6857
Epoch 63/100
77/77 [=====] - 0s 2ms/step - loss: 0.6229 - accuracy: 0.6938
Epoch 64/100
77/77 [=====] - 0s 2ms/step - loss: 0.6117 - accuracy: 0.7020
Epoch 65/100
77/77 [=====] - 0s 2ms/step - loss: 0.6234 - accuracy: 0.6840
Epoch 66/100
77/77 [=====] - 0s 2ms/step - loss: 0.6190 - accuracy: 0.6954
Epoch 67/100
77/77 [=====] - 0s 2ms/step - loss: 0.6130 - accuracy: 0.6971
Epoch 68/100
77/77 [=====] - 0s 2ms/step - loss: 0.6172 - accuracy: 0.6971
Epoch 69/100
77/77 [=====] - 0s 2ms/step - loss: 0.6064 - accuracy: 0.6873
Epoch 70/100
77/77 [=====] - 0s 2ms/step - loss: 0.6196 - accuracy: 0.6987
Epoch 71/100
77/77 [=====] - 0s 2ms/step - loss: 0.6099 - accuracy: 0.6954
Epoch 72/100
77/77 [=====] - 0s 2ms/step - loss: 0.6139 - accuracy: 0.7052
Epoch 73/100
```

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77/77 [=====] - 0s 2ms/step - loss: 0.6179 - accuracy: 0.6808
Epoch 74/100
77/77 [=====] - 0s 2ms/step - loss: 0.6101 - accuracy: 0.6954
Epoch 75/100
77/77 [=====] - 0s 1ms/step - loss: 0.6137 - accuracy: 0.6873
Epoch 76/100
77/77 [=====] - 0s 2ms/step - loss: 0.6024 - accuracy: 0.7052
Epoch 77/100
77/77 [=====] - 0s 2ms/step - loss: 0.6114 - accuracy: 0.6840
Epoch 78/100
77/77 [=====] - 0s 2ms/step - loss: 0.6140 - accuracy: 0.6873
Epoch 79/100
77/77 [=====] - 0s 2ms/step - loss: 0.6140 - accuracy: 0.6873
Epoch 80/100
77/77 [=====] - 0s 2ms/step - loss: 0.6115 - accuracy: 0.6922
Epoch 81/100
77/77 [=====] - 0s 2ms/step - loss: 0.6120 - accuracy: 0.6971
Epoch 82/100
77/77 [=====] - 0s 2ms/step - loss: 0.6019 - accuracy: 0.7068
Epoch 83/100
77/77 [=====] - 0s 1ms/step - loss: 0.6093 - accuracy: 0.6873
Epoch 84/100
77/77 [=====] - 0s 2ms/step - loss: 0.6045 - accuracy: 0.6954
Epoch 85/100
77/77 [=====] - 0s 2ms/step - loss: 0.6067 - accuracy: 0.6873
Epoch 86/100
77/77 [=====] - 0s 1ms/step - loss: 0.6106 - accuracy: 0.6889
Epoch 87/100
77/77 [=====] - 0s 2ms/step - loss: 0.6098 - accuracy: 0.6954
Epoch 88/100
77/77 [=====] - 0s 2ms/step - loss: 0.6024 - accuracy: 0.7166
Epoch 89/100
77/77 [=====] - 0s 2ms/step - loss: 0.6132 - accuracy: 0.6840
Epoch 90/100
77/77 [=====] - 0s 2ms/step - loss: 0.6101 - accuracy: 0.6938
Epoch 91/100
77/77 [=====] - 0s 2ms/step - loss: 0.6031 - accuracy: 0.7003
Epoch 92/100
77/77 [=====] - 0s 2ms/step - loss: 0.6005 - accuracy: 0.6971
Epoch 93/100
77/77 [=====] - 0s 2ms/step - loss: 0.6219 - accuracy: 0.6889
Epoch 94/100
77/77 [=====] - 0s 2ms/step - loss: 0.5986 - accuracy: 0.7003
Epoch 95/100
77/77 [=====] - 0s 2ms/step - loss: 0.6038 - accuracy: 0.7085
Epoch 96/100
77/77 [=====] - 0s 2ms/step - loss: 0.6095 - accuracy: 0.6906
Epoch 97/100
77/77 [=====] - 0s 2ms/step - loss: 0.6076 - accuracy: 0.7052
Epoch 98/100
77/77 [=====] - 0s 2ms/step - loss: 0.6010 - accuracy: 0.7117
Epoch 99/100
77/77 [=====] - 0s 2ms/step - loss: 0.6025 - accuracy: 0.7085
Epoch 100/100
77/77 [=====] - 0s 2ms/step - loss: 0.6008 - accuracy: 0.7068
20/20 [=====] - 0s 1ms/step - loss: 0.6183 - accuracy: 0.6688
Epoch 1/100
77/77 [=====] - 0s 1ms/step - loss: 2.6732 - accuracy: 0.6189
Epoch 2/100
77/77 [=====] - 0s 2ms/step - loss: 1.7291 - accuracy: 0.6287
Epoch 3/100
77/77 [=====] - 0s 2ms/step - loss: 1.4057 - accuracy: 0.6840
Epoch 4/100
77/77 [=====] - 0s 2ms/step - loss: 1.1897 - accuracy: 0.6808
Epoch 5/100
77/77 [=====] - 0s 2ms/step - loss: 1.0481 - accuracy: 0.6922
Epoch 6/100
77/77 [=====] - 0s 2ms/step - loss: 0.9384 - accuracy: 0.6824
Epoch 7/100
77/77 [=====] - 0s 1ms/step - loss: 0.8649 - accuracy: 0.6726
Epoch 8/100
77/77 [=====] - 0s 2ms/step - loss: 0.7958 - accuracy: 0.6824
Epoch 9/100
77/77 [=====] - 0s 2ms/step - loss: 0.7522 - accuracy: 0.6873
Epoch 10/100
77/77 [=====] - 0s 2ms/step - loss: 0.7237 - accuracy: 0.6906
Epoch 11/100
77/77 [=====] - 0s 2ms/step - loss: 0.6992 - accuracy: 0.6906
Epoch 12/100
77/77 [=====] - 0s 3ms/step - loss: 0.6823 - accuracy: 0.6922
Epoch 13/100
77/77 [=====] - 0s 2ms/step - loss: 0.6652 - accuracy: 0.6971
```

Epoch 14/100
77/77 [=====] - 0s 2ms/step - loss: 0.6524 - accuracy: 0.7068
Epoch 15/100
77/77 [=====] - 0s 2ms/step - loss: 0.6523 - accuracy: 0.6922
Epoch 16/100
77/77 [=====] - 0s 2ms/step - loss: 0.6445 - accuracy: 0.6873
Epoch 17/100
77/77 [=====] - 0s 2ms/step - loss: 0.6389 - accuracy: 0.6873
Epoch 18/100
77/77 [=====] - 0s 2ms/step - loss: 0.6383 - accuracy: 0.6889
Epoch 19/100
77/77 [=====] - 0s 2ms/step - loss: 0.6330 - accuracy: 0.6938
Epoch 20/100
77/77 [=====] - 0s 2ms/step - loss: 0.6247 - accuracy: 0.6792
Epoch 21/100
77/77 [=====] - 0s 2ms/step - loss: 0.6326 - accuracy: 0.6824
Epoch 22/100
77/77 [=====] - 0s 2ms/step - loss: 0.6212 - accuracy: 0.7085
Epoch 23/100
77/77 [=====] - 0s 2ms/step - loss: 0.6226 - accuracy: 0.6808
Epoch 24/100
77/77 [=====] - 0s 3ms/step - loss: 0.6239 - accuracy: 0.6954
Epoch 25/100
77/77 [=====] - 0s 2ms/step - loss: 0.6176 - accuracy: 0.7036
Epoch 26/100
77/77 [=====] - 0s 2ms/step - loss: 0.6182 - accuracy: 0.6889
Epoch 27/100
77/77 [=====] - 0s 1ms/step - loss: 0.6170 - accuracy: 0.7036
Epoch 28/100
77/77 [=====] - 0s 2ms/step - loss: 0.6145 - accuracy: 0.6922
Epoch 29/100
77/77 [=====] - 0s 2ms/step - loss: 0.6105 - accuracy: 0.6971
Epoch 30/100
77/77 [=====] - 0s 2ms/step - loss: 0.6135 - accuracy: 0.6906
Epoch 31/100
77/77 [=====] - 0s 2ms/step - loss: 0.6142 - accuracy: 0.6954
Epoch 32/100
77/77 [=====] - 0s 2ms/step - loss: 0.6087 - accuracy: 0.6971
Epoch 33/100
77/77 [=====] - 0s 2ms/step - loss: 0.6104 - accuracy: 0.7036
Epoch 34/100
77/77 [=====] - 0s 1ms/step - loss: 0.6161 - accuracy: 0.7020
Epoch 35/100
77/77 [=====] - 0s 2ms/step - loss: 0.6121 - accuracy: 0.7117
Epoch 36/100
77/77 [=====] - 0s 2ms/step - loss: 0.6031 - accuracy: 0.7101
Epoch 37/100
77/77 [=====] - 0s 2ms/step - loss: 0.6099 - accuracy: 0.6938
Epoch 38/100
77/77 [=====] - 0s 2ms/step - loss: 0.6065 - accuracy: 0.6840
Epoch 39/100
77/77 [=====] - 0s 2ms/step - loss: 0.6095 - accuracy: 0.7036
Epoch 40/100
77/77 [=====] - 0s 2ms/step - loss: 0.6092 - accuracy: 0.6906
Epoch 41/100
77/77 [=====] - 0s 2ms/step - loss: 0.6068 - accuracy: 0.6954
Epoch 42/100
77/77 [=====] - 0s 2ms/step - loss: 0.6051 - accuracy: 0.7036
Epoch 43/100
77/77 [=====] - 0s 3ms/step - loss: 0.5978 - accuracy: 0.6873
Epoch 44/100
77/77 [=====] - 0s 2ms/step - loss: 0.5989 - accuracy: 0.7101
Epoch 45/100
77/77 [=====] - 0s 1ms/step - loss: 0.6051 - accuracy: 0.7036
Epoch 46/100
77/77 [=====] - 0s 2ms/step - loss: 0.6040 - accuracy: 0.7036
Epoch 47/100
77/77 [=====] - 0s 2ms/step - loss: 0.5984 - accuracy: 0.7003
Epoch 48/100
77/77 [=====] - 0s 2ms/step - loss: 0.5929 - accuracy: 0.7036
Epoch 49/100
77/77 [=====] - 0s 2ms/step - loss: 0.5976 - accuracy: 0.6906
Epoch 50/100
77/77 [=====] - 0s 2ms/step - loss: 0.5970 - accuracy: 0.7101
Epoch 51/100
77/77 [=====] - 0s 2ms/step - loss: 0.5893 - accuracy: 0.7117
Epoch 52/100
77/77 [=====] - 0s 1ms/step - loss: 0.5889 - accuracy: 0.7085
Epoch 53/100
77/77 [=====] - 0s 2ms/step - loss: 0.5950 - accuracy: 0.7036
Epoch 54/100
77/77 [=====] - 0s 2ms/step - loss: 0.6038 - accuracy: 0.6971

Epoch 55/100
77/77 [=====] - 0s 2ms/step - loss: 0.5955 - accuracy: 0.7020
Epoch 56/100
77/77 [=====] - 0s 1ms/step - loss: 0.5986 - accuracy: 0.6906
Epoch 57/100
77/77 [=====] - 0s 2ms/step - loss: 0.5998 - accuracy: 0.7020
Epoch 58/100
77/77 [=====] - 0s 2ms/step - loss: 0.5957 - accuracy: 0.7085
Epoch 59/100
77/77 [=====] - 0s 2ms/step - loss: 0.5936 - accuracy: 0.6938
Epoch 60/100
77/77 [=====] - 0s 2ms/step - loss: 0.5990 - accuracy: 0.6954
Epoch 61/100
77/77 [=====] - 0s 2ms/step - loss: 0.5882 - accuracy: 0.7020
Epoch 62/100
77/77 [=====] - 0s 2ms/step - loss: 0.5871 - accuracy: 0.7068
Epoch 63/100
77/77 [=====] - 0s 1ms/step - loss: 0.5848 - accuracy: 0.7182
Epoch 64/100
77/77 [=====] - 0s 2ms/step - loss: 0.5962 - accuracy: 0.6987
Epoch 65/100
77/77 [=====] - 0s 2ms/step - loss: 0.5878 - accuracy: 0.7199
Epoch 66/100
77/77 [=====] - 0s 1ms/step - loss: 0.5865 - accuracy: 0.7068
Epoch 67/100
77/77 [=====] - 0s 2ms/step - loss: 0.5985 - accuracy: 0.6873
Epoch 68/100
77/77 [=====] - 0s 2ms/step - loss: 0.5919 - accuracy: 0.7134
Epoch 69/100
77/77 [=====] - 0s 2ms/step - loss: 0.5936 - accuracy: 0.7068
Epoch 70/100
77/77 [=====] - 0s 1ms/step - loss: 0.6022 - accuracy: 0.6987
Epoch 71/100
77/77 [=====] - 0s 2ms/step - loss: 0.5842 - accuracy: 0.7068
Epoch 72/100
77/77 [=====] - 0s 2ms/step - loss: 0.5959 - accuracy: 0.7150
Epoch 73/100
77/77 [=====] - 0s 1ms/step - loss: 0.5839 - accuracy: 0.7020
Epoch 74/100
77/77 [=====] - 0s 2ms/step - loss: 0.5925 - accuracy: 0.6987
Epoch 75/100
77/77 [=====] - 0s 2ms/step - loss: 0.5864 - accuracy: 0.7101
Epoch 76/100
77/77 [=====] - 0s 1ms/step - loss: 0.5887 - accuracy: 0.6971
Epoch 77/100
77/77 [=====] - 0s 2ms/step - loss: 0.5864 - accuracy: 0.7003
Epoch 78/100
77/77 [=====] - 0s 3ms/step - loss: 0.5883 - accuracy: 0.7068
Epoch 79/100
77/77 [=====] - 0s 2ms/step - loss: 0.5826 - accuracy: 0.7248
Epoch 80/100
77/77 [=====] - 0s 2ms/step - loss: 0.5818 - accuracy: 0.7003
Epoch 81/100
77/77 [=====] - 0s 2ms/step - loss: 0.5848 - accuracy: 0.7068
Epoch 82/100
77/77 [=====] - 0s 2ms/step - loss: 0.5865 - accuracy: 0.6954
Epoch 83/100
77/77 [=====] - 0s 2ms/step - loss: 0.5861 - accuracy: 0.7248
Epoch 84/100
77/77 [=====] - 0s 2ms/step - loss: 0.5866 - accuracy: 0.7166
Epoch 85/100
77/77 [=====] - 0s 2ms/step - loss: 0.5836 - accuracy: 0.7166
Epoch 86/100
77/77 [=====] - 0s 2ms/step - loss: 0.5993 - accuracy: 0.7036
Epoch 87/100
77/77 [=====] - 0s 2ms/step - loss: 0.5923 - accuracy: 0.6873
Epoch 88/100
77/77 [=====] - 0s 2ms/step - loss: 0.5827 - accuracy: 0.7117
Epoch 89/100
77/77 [=====] - 0s 2ms/step - loss: 0.5876 - accuracy: 0.7020
Epoch 90/100
77/77 [=====] - 0s 2ms/step - loss: 0.5783 - accuracy: 0.7117
Epoch 91/100
77/77 [=====] - 0s 2ms/step - loss: 0.5927 - accuracy: 0.7085
Epoch 92/100
77/77 [=====] - 0s 2ms/step - loss: 0.5845 - accuracy: 0.7150
Epoch 93/100
77/77 [=====] - 0s 2ms/step - loss: 0.5866 - accuracy: 0.6938
Epoch 94/100
77/77 [=====] - 0s 2ms/step - loss: 0.5908 - accuracy: 0.7052
Epoch 95/100
77/77 [=====] - 0s 2ms/step - loss: 0.5880 - accuracy: 0.6873


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Epoch 96/100
77/77 [=====] - 0s 3ms/step - loss: 0.5754 - accuracy: 0.7101
Epoch 97/100
77/77 [=====] - 0s 2ms/step - loss: 0.5910 - accuracy: 0.7003
Epoch 98/100
77/77 [=====] - 0s 2ms/step - loss: 0.5863 - accuracy: 0.7052
Epoch 99/100
77/77 [=====] - 0s 2ms/step - loss: 0.5934 - accuracy: 0.7101
Epoch 100/100
77/77 [=====] - 0s 1ms/step - loss: 0.5770 - accuracy: 0.7199
20/20 [=====] - 0s 1ms/step - loss: 0.6467 - accuracy: 0.6364
Epoch 1/100
77/77 [=====] - 0s 2ms/step - loss: 2.7856 - accuracy: 0.6433
Epoch 2/100
77/77 [=====] - 0s 2ms/step - loss: 1.7916 - accuracy: 0.6580
Epoch 3/100
77/77 [=====] - 0s 2ms/step - loss: 1.4878 - accuracy: 0.6531
Epoch 4/100
77/77 [=====] - 0s 2ms/step - loss: 1.2613 - accuracy: 0.6564
Epoch 5/100
77/77 [=====] - 0s 2ms/step - loss: 1.0969 - accuracy: 0.6564
Epoch 6/100
77/77 [=====] - 0s 2ms/step - loss: 0.9762 - accuracy: 0.6564
Epoch 7/100
77/77 [=====] - 0s 2ms/step - loss: 0.8877 - accuracy: 0.6564
Epoch 8/100
77/77 [=====] - 0s 2ms/step - loss: 0.8228 - accuracy: 0.6564
Epoch 9/100
77/77 [=====] - 0s 2ms/step - loss: 0.7751 - accuracy: 0.6564
Epoch 10/100
77/77 [=====] - 0s 1ms/step - loss: 0.7402 - accuracy: 0.6564
Epoch 11/100
77/77 [=====] - 0s 2ms/step - loss: 0.7145 - accuracy: 0.6564
Epoch 12/100
77/77 [=====] - 0s 2ms/step - loss: 0.6956 - accuracy: 0.6564
Epoch 13/100
77/77 [=====] - 0s 2ms/step - loss: 0.6819 - accuracy: 0.6564
Epoch 14/100
77/77 [=====] - 0s 2ms/step - loss: 0.6717 - accuracy: 0.6564
Epoch 15/100
77/77 [=====] - 0s 2ms/step - loss: 0.6642 - accuracy: 0.6564
Epoch 16/100
77/77 [=====] - 0s 2ms/step - loss: 0.6588 - accuracy: 0.6564
Epoch 17/100
77/77 [=====] - 0s 2ms/step - loss: 0.6547 - accuracy: 0.6564
Epoch 18/100
77/77 [=====] - 0s 1ms/step - loss: 0.6518 - accuracy: 0.6564
Epoch 19/100
77/77 [=====] - 0s 2ms/step - loss: 0.6496 - accuracy: 0.6564
Epoch 20/100
77/77 [=====] - 0s 2ms/step - loss: 0.6480 - accuracy: 0.6564
Epoch 21/100
77/77 [=====] - 0s 2ms/step - loss: 0.6468 - accuracy: 0.6564
Epoch 22/100
77/77 [=====] - 0s 3ms/step - loss: 0.6459 - accuracy: 0.6564
Epoch 23/100
77/77 [=====] - 0s 2ms/step - loss: 0.6453 - accuracy: 0.6564
Epoch 24/100
77/77 [=====] - 0s 2ms/step - loss: 0.6448 - accuracy: 0.6564
Epoch 25/100
77/77 [=====] - 0s 2ms/step - loss: 0.6445 - accuracy: 0.6564
Epoch 26/100
77/77 [=====] - 0s 2ms/step - loss: 0.6443 - accuracy: 0.6564
Epoch 27/100
77/77 [=====] - 0s 1ms/step - loss: 0.6441 - accuracy: 0.6564
Epoch 28/100
77/77 [=====] - 0s 2ms/step - loss: 0.6439 - accuracy: 0.6564
Epoch 29/100
77/77 [=====] - 0s 2ms/step - loss: 0.6438 - accuracy: 0.6564
Epoch 30/100
77/77 [=====] - 0s 2ms/step - loss: 0.6437 - accuracy: 0.6564
Epoch 31/100
77/77 [=====] - 0s 2ms/step - loss: 0.6437 - accuracy: 0.6564
Epoch 32/100
77/77 [=====] - 0s 2ms/step - loss: 0.6436 - accuracy: 0.6564
Epoch 33/100
77/77 [=====] - 0s 2ms/step - loss: 0.6436 - accuracy: 0.6564
Epoch 34/100
77/77 [=====] - 0s 2ms/step - loss: 0.6437 - accuracy: 0.6564
Epoch 35/100
77/77 [=====] - 0s 2ms/step - loss: 0.6436 - accuracy: 0.6564
Epoch 36/100
```

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77/77 [=====] - 0s 2ms/step - loss: 0.6434 - accuracy: 0.6564
Epoch 37/100
77/77 [=====] - 0s 2ms/step - loss: 0.6401 - accuracy: 0.6547
Epoch 38/100
77/77 [=====] - 0s 1ms/step - loss: 0.6378 - accuracy: 0.6531
Epoch 39/100
77/77 [=====] - 0s 3ms/step - loss: 0.6321 - accuracy: 0.6564
Epoch 40/100
77/77 [=====] - 0s 2ms/step - loss: 0.6294 - accuracy: 0.6661
Epoch 41/100
77/77 [=====] - 0s 1ms/step - loss: 0.6255 - accuracy: 0.6645
Epoch 42/100
77/77 [=====] - 0s 2ms/step - loss: 0.6198 - accuracy: 0.6954
Epoch 43/100
77/77 [=====] - 0s 2ms/step - loss: 0.6279 - accuracy: 0.6792
Epoch 44/100
77/77 [=====] - 0s 2ms/step - loss: 0.6204 - accuracy: 0.6889
Epoch 45/100
77/77 [=====] - 0s 2ms/step - loss: 0.6232 - accuracy: 0.6906
Epoch 46/100
77/77 [=====] - 0s 2ms/step - loss: 0.6226 - accuracy: 0.6694
Epoch 47/100
77/77 [=====] - 0s 2ms/step - loss: 0.6236 - accuracy: 0.6808
Epoch 48/100
77/77 [=====] - 0s 2ms/step - loss: 0.6204 - accuracy: 0.6906
Epoch 49/100
77/77 [=====] - 0s 3ms/step - loss: 0.6208 - accuracy: 0.6759
Epoch 50/100
77/77 [=====] - 0s 2ms/step - loss: 0.6195 - accuracy: 0.6710
Epoch 51/100
77/77 [=====] - 0s 2ms/step - loss: 0.6209 - accuracy: 0.6743
Epoch 52/100
77/77 [=====] - 0s 2ms/step - loss: 0.6100 - accuracy: 0.7068
Epoch 53/100
77/77 [=====] - 0s 2ms/step - loss: 0.6152 - accuracy: 0.6775
Epoch 54/100
77/77 [=====] - 0s 2ms/step - loss: 0.6163 - accuracy: 0.6824
Epoch 55/100
77/77 [=====] - 0s 2ms/step - loss: 0.6086 - accuracy: 0.7003
Epoch 56/100
77/77 [=====] - 0s 2ms/step - loss: 0.6138 - accuracy: 0.6808
Epoch 57/100
77/77 [=====] - 0s 2ms/step - loss: 0.6153 - accuracy: 0.6759
Epoch 58/100
77/77 [=====] - 0s 2ms/step - loss: 0.6172 - accuracy: 0.6954
Epoch 59/100
77/77 [=====] - 0s 2ms/step - loss: 0.6231 - accuracy: 0.6710
Epoch 60/100
77/77 [=====] - 0s 2ms/step - loss: 0.6078 - accuracy: 0.6971
Epoch 61/100
77/77 [=====] - 0s 3ms/step - loss: 0.6120 - accuracy: 0.6857
Epoch 62/100
77/77 [=====] - 0s 2ms/step - loss: 0.6162 - accuracy: 0.6857
Epoch 63/100
77/77 [=====] - 0s 2ms/step - loss: 0.6085 - accuracy: 0.6906
Epoch 64/100
77/77 [=====] - 0s 2ms/step - loss: 0.6108 - accuracy: 0.6824
Epoch 65/100
77/77 [=====] - 0s 2ms/step - loss: 0.6072 - accuracy: 0.6857
Epoch 66/100
77/77 [=====] - 0s 2ms/step - loss: 0.6071 - accuracy: 0.7036
Epoch 67/100
77/77 [=====] - 0s 2ms/step - loss: 0.6062 - accuracy: 0.6922
Epoch 68/100
77/77 [=====] - 0s 1ms/step - loss: 0.6095 - accuracy: 0.6857
Epoch 69/100
77/77 [=====] - 0s 2ms/step - loss: 0.6086 - accuracy: 0.7199
Epoch 70/100
77/77 [=====] - 0s 2ms/step - loss: 0.6178 - accuracy: 0.6857
Epoch 71/100
77/77 [=====] - 0s 2ms/step - loss: 0.5970 - accuracy: 0.7085
Epoch 72/100
77/77 [=====] - 0s 2ms/step - loss: 0.6136 - accuracy: 0.6857
Epoch 73/100
77/77 [=====] - 0s 2ms/step - loss: 0.6044 - accuracy: 0.7085
Epoch 74/100
77/77 [=====] - 0s 2ms/step - loss: 0.6018 - accuracy: 0.6840
Epoch 75/100
77/77 [=====] - 0s 1ms/step - loss: 0.6027 - accuracy: 0.6971
Epoch 76/100
77/77 [=====] - 0s 3ms/step - loss: 0.6065 - accuracy: 0.7052
Epoch 77/100
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77/77 [=====] - 0s 2ms/step - loss: 0.6006 - accuracy: 0.6906
Epoch 78/100
77/77 [=====] - 0s 2ms/step - loss: 0.6070 - accuracy: 0.6808
Epoch 79/100
77/77 [=====] - 0s 2ms/step - loss: 0.6067 - accuracy: 0.6954
Epoch 80/100
77/77 [=====] - 0s 2ms/step - loss: 0.6000 - accuracy: 0.7101
Epoch 81/100
77/77 [=====] - 0s 3ms/step - loss: 0.5959 - accuracy: 0.6987
Epoch 82/100
77/77 [=====] - 0s 2ms/step - loss: 0.5892 - accuracy: 0.7068
Epoch 83/100
77/77 [=====] - 0s 2ms/step - loss: 0.5998 - accuracy: 0.6889
Epoch 84/100
77/77 [=====] - 0s 2ms/step - loss: 0.6071 - accuracy: 0.6775
Epoch 85/100
77/77 [=====] - 0s 2ms/step - loss: 0.6115 - accuracy: 0.6808
Epoch 86/100
77/77 [=====] - 0s 2ms/step - loss: 0.5984 - accuracy: 0.6938
Epoch 87/100
77/77 [=====] - 0s 2ms/step - loss: 0.5928 - accuracy: 0.7085
Epoch 88/100
77/77 [=====] - 0s 2ms/step - loss: 0.5931 - accuracy: 0.6971
Epoch 89/100
77/77 [=====] - 0s 2ms/step - loss: 0.5997 - accuracy: 0.7052
Epoch 90/100
77/77 [=====] - 0s 2ms/step - loss: 0.6007 - accuracy: 0.6938
Epoch 91/100
77/77 [=====] - 0s 2ms/step - loss: 0.5968 - accuracy: 0.7085
Epoch 92/100
77/77 [=====] - 0s 2ms/step - loss: 0.6134 - accuracy: 0.6808
Epoch 93/100
77/77 [=====] - 0s 2ms/step - loss: 0.5891 - accuracy: 0.7248
Epoch 94/100
77/77 [=====] - 0s 2ms/step - loss: 0.6025 - accuracy: 0.6873
Epoch 95/100
77/77 [=====] - 0s 1ms/step - loss: 0.5866 - accuracy: 0.7036
Epoch 96/100
77/77 [=====] - 0s 2ms/step - loss: 0.5967 - accuracy: 0.6922
Epoch 97/100
77/77 [=====] - 0s 2ms/step - loss: 0.6062 - accuracy: 0.7085
Epoch 98/100
77/77 [=====] - 0s 1ms/step - loss: 0.6081 - accuracy: 0.6889
Epoch 99/100
77/77 [=====] - 0s 2ms/step - loss: 0.6032 - accuracy: 0.6938
Epoch 100/100
77/77 [=====] - 0s 2ms/step - loss: 0.5988 - accuracy: 0.6906
20/20 [=====] - 0s 1ms/step - loss: 0.6761 - accuracy: 0.6299
Epoch 1/100
77/77 [=====] - 1s 1ms/step - loss: 2.6444 - accuracy: 0.5984
Epoch 2/100
77/77 [=====] - 0s 2ms/step - loss: 1.5389 - accuracy: 0.6472
Epoch 3/100
77/77 [=====] - 0s 3ms/step - loss: 1.2959 - accuracy: 0.6553
Epoch 4/100
77/77 [=====] - 0s 2ms/step - loss: 1.1336 - accuracy: 0.6488
Epoch 5/100
77/77 [=====] - 0s 2ms/step - loss: 0.9926 - accuracy: 0.6569
Epoch 6/100
77/77 [=====] - 0s 2ms/step - loss: 0.9043 - accuracy: 0.6585
Epoch 7/100
77/77 [=====] - 0s 2ms/step - loss: 0.8354 - accuracy: 0.6537
Epoch 8/100
77/77 [=====] - 0s 1ms/step - loss: 0.7858 - accuracy: 0.6683
Epoch 9/100
77/77 [=====] - 0s 2ms/step - loss: 0.7475 - accuracy: 0.6569
Epoch 10/100
77/77 [=====] - 0s 2ms/step - loss: 0.7181 - accuracy: 0.6683
Epoch 11/100
77/77 [=====] - 0s 2ms/step - loss: 0.6977 - accuracy: 0.6634
Epoch 12/100
77/77 [=====] - 0s 2ms/step - loss: 0.6785 - accuracy: 0.6797
Epoch 13/100
77/77 [=====] - 0s 2ms/step - loss: 0.6699 - accuracy: 0.6602
Epoch 14/100
77/77 [=====] - 0s 2ms/step - loss: 0.6617 - accuracy: 0.6748
Epoch 15/100
77/77 [=====] - 0s 2ms/step - loss: 0.6563 - accuracy: 0.6488
Epoch 16/100
77/77 [=====] - 0s 2ms/step - loss: 0.6478 - accuracy: 0.6699
Epoch 17/100
77/77 [=====] - 0s 2ms/step - loss: 0.6452 - accuracy: 0.6894
```

Epoch 18/100
77/77 [=====] - 0s 2ms/step - loss: 0.6400 - accuracy: 0.6650
Epoch 19/100
77/77 [=====] - 0s 1ms/step - loss: 0.6361 - accuracy: 0.6748
Epoch 20/100
77/77 [=====] - 0s 2ms/step - loss: 0.6424 - accuracy: 0.6748
Epoch 21/100
77/77 [=====] - 0s 2ms/step - loss: 0.6412 - accuracy: 0.6618
Epoch 22/100
77/77 [=====] - 0s 2ms/step - loss: 0.6284 - accuracy: 0.6911
Epoch 23/100
77/77 [=====] - 0s 2ms/step - loss: 0.6240 - accuracy: 0.6667
Epoch 24/100
77/77 [=====] - 0s 2ms/step - loss: 0.6292 - accuracy: 0.6797
Epoch 25/100
77/77 [=====] - 0s 2ms/step - loss: 0.6305 - accuracy: 0.6699
Epoch 26/100
77/77 [=====] - 0s 2ms/step - loss: 0.6297 - accuracy: 0.6715
Epoch 27/100
77/77 [=====] - 0s 2ms/step - loss: 0.6317 - accuracy: 0.6683
Epoch 28/100
77/77 [=====] - 0s 2ms/step - loss: 0.6314 - accuracy: 0.6650
Epoch 29/100
77/77 [=====] - 0s 2ms/step - loss: 0.6265 - accuracy: 0.6715
Epoch 30/100
77/77 [=====] - 0s 2ms/step - loss: 0.6262 - accuracy: 0.6894
Epoch 31/100
77/77 [=====] - 0s 3ms/step - loss: 0.6253 - accuracy: 0.6732
Epoch 32/100
77/77 [=====] - 0s 2ms/step - loss: 0.6205 - accuracy: 0.6862
Epoch 33/100
77/77 [=====] - 0s 2ms/step - loss: 0.6293 - accuracy: 0.6813
Epoch 34/100
77/77 [=====] - 0s 2ms/step - loss: 0.6253 - accuracy: 0.6667
Epoch 35/100
77/77 [=====] - 0s 2ms/step - loss: 0.6167 - accuracy: 0.6878
Epoch 36/100
77/77 [=====] - 0s 2ms/step - loss: 0.6270 - accuracy: 0.6797
Epoch 37/100
77/77 [=====] - 0s 1ms/step - loss: 0.6260 - accuracy: 0.6650
Epoch 38/100
77/77 [=====] - 0s 3ms/step - loss: 0.6243 - accuracy: 0.6715
Epoch 39/100
77/77 [=====] - 0s 2ms/step - loss: 0.6254 - accuracy: 0.6780
Epoch 40/100
77/77 [=====] - 0s 2ms/step - loss: 0.6193 - accuracy: 0.6780
Epoch 41/100
77/77 [=====] - 0s 2ms/step - loss: 0.6163 - accuracy: 0.6732
Epoch 42/100
77/77 [=====] - 0s 2ms/step - loss: 0.6281 - accuracy: 0.6829
Epoch 43/100
77/77 [=====] - 0s 2ms/step - loss: 0.6267 - accuracy: 0.6732
Epoch 44/100
77/77 [=====] - 0s 1ms/step - loss: 0.6230 - accuracy: 0.6569
Epoch 45/100
77/77 [=====] - 0s 2ms/step - loss: 0.6220 - accuracy: 0.6764
Epoch 46/100
77/77 [=====] - 0s 2ms/step - loss: 0.6235 - accuracy: 0.6715
Epoch 47/100
77/77 [=====] - 0s 2ms/step - loss: 0.6226 - accuracy: 0.6813
Epoch 48/100
77/77 [=====] - 0s 2ms/step - loss: 0.6104 - accuracy: 0.6992
Epoch 49/100
77/77 [=====] - 0s 2ms/step - loss: 0.6293 - accuracy: 0.6634
Epoch 50/100
77/77 [=====] - 0s 2ms/step - loss: 0.6300 - accuracy: 0.6732
Epoch 51/100
77/77 [=====] - 0s 2ms/step - loss: 0.6317 - accuracy: 0.6569
Epoch 52/100
77/77 [=====] - 0s 1ms/step - loss: 0.6116 - accuracy: 0.6911
Epoch 53/100
77/77 [=====] - 0s 3ms/step - loss: 0.6185 - accuracy: 0.6846
Epoch 54/100
77/77 [=====] - 0s 2ms/step - loss: 0.6156 - accuracy: 0.6780
Epoch 55/100
77/77 [=====] - 0s 2ms/step - loss: 0.6252 - accuracy: 0.6699
Epoch 56/100
77/77 [=====] - 0s 1ms/step - loss: 0.6184 - accuracy: 0.6732
Epoch 57/100
77/77 [=====] - 0s 3ms/step - loss: 0.6187 - accuracy: 0.6732
Epoch 58/100
77/77 [=====] - 0s 2ms/step - loss: 0.6143 - accuracy: 0.6894

Epoch 59/100
77/77 [=====] - 0s 2ms/step - loss: 0.6123 - accuracy: 0.7008
Epoch 60/100
77/77 [=====] - 0s 2ms/step - loss: 0.6146 - accuracy: 0.6911
Epoch 61/100
77/77 [=====] - 0s 2ms/step - loss: 0.6227 - accuracy: 0.6650
Epoch 62/100
77/77 [=====] - 0s 1ms/step - loss: 0.6146 - accuracy: 0.6927
Epoch 63/100
77/77 [=====] - 0s 2ms/step - loss: 0.6120 - accuracy: 0.6943
Epoch 64/100
77/77 [=====] - 0s 2ms/step - loss: 0.6197 - accuracy: 0.6813
Epoch 65/100
77/77 [=====] - 0s 1ms/step - loss: 0.6146 - accuracy: 0.6764
Epoch 66/100
77/77 [=====] - 0s 2ms/step - loss: 0.6067 - accuracy: 0.6862
Epoch 67/100
77/77 [=====] - 0s 2ms/step - loss: 0.6152 - accuracy: 0.6780
Epoch 68/100
77/77 [=====] - 0s 2ms/step - loss: 0.6071 - accuracy: 0.7024
Epoch 69/100
77/77 [=====] - 0s 2ms/step - loss: 0.6246 - accuracy: 0.6878
Epoch 70/100
77/77 [=====] - 0s 2ms/step - loss: 0.6237 - accuracy: 0.6780
Epoch 71/100
77/77 [=====] - 0s 1ms/step - loss: 0.6180 - accuracy: 0.6862
Epoch 72/100
77/77 [=====] - 0s 3ms/step - loss: 0.6082 - accuracy: 0.6927
Epoch 73/100
77/77 [=====] - 0s 2ms/step - loss: 0.6111 - accuracy: 0.6927
Epoch 74/100
77/77 [=====] - 0s 2ms/step - loss: 0.6149 - accuracy: 0.6878
Epoch 75/100
77/77 [=====] - 0s 3ms/step - loss: 0.6033 - accuracy: 0.6992
Epoch 76/100
77/77 [=====] - 0s 2ms/step - loss: 0.6228 - accuracy: 0.6764
Epoch 77/100
77/77 [=====] - 0s 2ms/step - loss: 0.6204 - accuracy: 0.6797
Epoch 78/100
77/77 [=====] - 0s 2ms/step - loss: 0.6151 - accuracy: 0.6894
Epoch 79/100
77/77 [=====] - 0s 2ms/step - loss: 0.6081 - accuracy: 0.6943
Epoch 80/100
77/77 [=====] - 0s 2ms/step - loss: 0.6123 - accuracy: 0.6959
Epoch 81/100
77/77 [=====] - 0s 2ms/step - loss: 0.6078 - accuracy: 0.7041
Epoch 82/100
77/77 [=====] - 0s 2ms/step - loss: 0.6188 - accuracy: 0.6862
Epoch 83/100
77/77 [=====] - 0s 2ms/step - loss: 0.6223 - accuracy: 0.6699
Epoch 84/100
77/77 [=====] - 0s 2ms/step - loss: 0.6216 - accuracy: 0.6634
Epoch 85/100
77/77 [=====] - 0s 2ms/step - loss: 0.6070 - accuracy: 0.7073
Epoch 86/100
77/77 [=====] - 0s 1ms/step - loss: 0.6109 - accuracy: 0.6862
Epoch 87/100
77/77 [=====] - 0s 2ms/step - loss: 0.6092 - accuracy: 0.6976
Epoch 88/100
77/77 [=====] - 0s 2ms/step - loss: 0.6267 - accuracy: 0.6943
Epoch 89/100
77/77 [=====] - 0s 3ms/step - loss: 0.6168 - accuracy: 0.6927
Epoch 90/100
77/77 [=====] - 0s 2ms/step - loss: 0.6087 - accuracy: 0.6878
Epoch 91/100
77/77 [=====] - 0s 2ms/step - loss: 0.6150 - accuracy: 0.6732
Epoch 92/100
77/77 [=====] - 0s 2ms/step - loss: 0.6069 - accuracy: 0.7024
Epoch 93/100
77/77 [=====] - 0s 2ms/step - loss: 0.6072 - accuracy: 0.6959
Epoch 94/100
77/77 [=====] - 0s 2ms/step - loss: 0.6134 - accuracy: 0.6878
Epoch 95/100
77/77 [=====] - 0s 2ms/step - loss: 0.6003 - accuracy: 0.6943
Epoch 96/100
77/77 [=====] - 0s 3ms/step - loss: 0.6174 - accuracy: 0.6959
Epoch 97/100
77/77 [=====] - 0s 2ms/step - loss: 0.6263 - accuracy: 0.6780
Epoch 98/100
77/77 [=====] - 0s 2ms/step - loss: 0.6146 - accuracy: 0.6780
Epoch 99/100
77/77 [=====] - 0s 2ms/step - loss: 0.6296 - accuracy: 0.6764

Epoch 100/100
77/77 [=====] - 0s 2ms/step - loss: 0.6143 - accuracy: 0.6732
20/20 [=====] - 0s 1ms/step - loss: 0.5479 - accuracy: 0.8105
Epoch 1/100
77/77 [=====] - 0s 2ms/step - loss: 2.7223 - accuracy: 0.6276
Epoch 2/100
77/77 [=====] - 0s 2ms/step - loss: 1.5793 - accuracy: 0.6667
Epoch 3/100
77/77 [=====] - 0s 2ms/step - loss: 1.3298 - accuracy: 0.6602
Epoch 4/100
77/77 [=====] - 0s 2ms/step - loss: 1.1449 - accuracy: 0.6488
Epoch 5/100
77/77 [=====] - 0s 2ms/step - loss: 1.0108 - accuracy: 0.6667
Epoch 6/100
77/77 [=====] - 0s 2ms/step - loss: 0.9109 - accuracy: 0.6797
Epoch 7/100
77/77 [=====] - 0s 2ms/step - loss: 0.8363 - accuracy: 0.6764
Epoch 8/100
77/77 [=====] - 0s 2ms/step - loss: 0.7900 - accuracy: 0.6553
Epoch 9/100
77/77 [=====] - 0s 2ms/step - loss: 0.7411 - accuracy: 0.6846
Epoch 10/100
77/77 [=====] - 0s 2ms/step - loss: 0.7117 - accuracy: 0.6959
Epoch 11/100
77/77 [=====] - 0s 2ms/step - loss: 0.6943 - accuracy: 0.6602
Epoch 12/100
77/77 [=====] - 0s 3ms/step - loss: 0.6726 - accuracy: 0.6780
Epoch 13/100
77/77 [=====] - 0s 2ms/step - loss: 0.6668 - accuracy: 0.6764
Epoch 14/100
77/77 [=====] - 0s 1ms/step - loss: 0.6545 - accuracy: 0.6829
Epoch 15/100
77/77 [=====] - 0s 2ms/step - loss: 0.6404 - accuracy: 0.6829
Epoch 16/100
77/77 [=====] - 0s 3ms/step - loss: 0.6486 - accuracy: 0.6715
Epoch 17/100
77/77 [=====] - 0s 2ms/step - loss: 0.6389 - accuracy: 0.6862
Epoch 18/100
77/77 [=====] - 0s 2ms/step - loss: 0.6384 - accuracy: 0.6927
Epoch 19/100
77/77 [=====] - 0s 2ms/step - loss: 0.6349 - accuracy: 0.6829
Epoch 20/100
77/77 [=====] - 0s 2ms/step - loss: 0.6326 - accuracy: 0.6732
Epoch 21/100
77/77 [=====] - 0s 2ms/step - loss: 0.6328 - accuracy: 0.6878
Epoch 22/100
77/77 [=====] - 0s 2ms/step - loss: 0.6263 - accuracy: 0.6764
Epoch 23/100
77/77 [=====] - 0s 2ms/step - loss: 0.6274 - accuracy: 0.6715
Epoch 24/100
77/77 [=====] - 0s 2ms/step - loss: 0.6231 - accuracy: 0.6992
Epoch 25/100
77/77 [=====] - 0s 2ms/step - loss: 0.6286 - accuracy: 0.6829
Epoch 26/100
77/77 [=====] - 0s 2ms/step - loss: 0.6298 - accuracy: 0.6813
Epoch 27/100
77/77 [=====] - 0s 2ms/step - loss: 0.6198 - accuracy: 0.6976
Epoch 28/100
77/77 [=====] - 0s 2ms/step - loss: 0.6244 - accuracy: 0.6943
Epoch 29/100
77/77 [=====] - 0s 2ms/step - loss: 0.6247 - accuracy: 0.6780
Epoch 30/100
77/77 [=====] - 0s 2ms/step - loss: 0.6255 - accuracy: 0.6878
Epoch 31/100
77/77 [=====] - 0s 3ms/step - loss: 0.6220 - accuracy: 0.6780
Epoch 32/100
77/77 [=====] - 0s 2ms/step - loss: 0.6169 - accuracy: 0.6976
Epoch 33/100
77/77 [=====] - 0s 2ms/step - loss: 0.6252 - accuracy: 0.6797
Epoch 34/100
77/77 [=====] - 0s 2ms/step - loss: 0.6128 - accuracy: 0.6959
Epoch 35/100
77/77 [=====] - 0s 2ms/step - loss: 0.6195 - accuracy: 0.7041
Epoch 36/100
77/77 [=====] - 0s 2ms/step - loss: 0.6001 - accuracy: 0.7138
Epoch 37/100
77/77 [=====] - 0s 2ms/step - loss: 0.6195 - accuracy: 0.6943
Epoch 38/100
77/77 [=====] - 0s 2ms/step - loss: 0.6139 - accuracy: 0.6976
Epoch 39/100
77/77 [=====] - 0s 3ms/step - loss: 0.6126 - accuracy: 0.6846
Epoch 40/100

77/77 [=====] - 0s 2ms/step - loss: 0.6140 - accuracy: 0.6862
Epoch 41/100
77/77 [=====] - 0s 2ms/step - loss: 0.6107 - accuracy: 0.6732
Epoch 42/100
77/77 [=====] - 0s 1ms/step - loss: 0.6039 - accuracy: 0.6878
Epoch 43/100
77/77 [=====] - 0s 2ms/step - loss: 0.6134 - accuracy: 0.6846
Epoch 44/100
77/77 [=====] - 0s 2ms/step - loss: 0.6160 - accuracy: 0.6650
Epoch 45/100
77/77 [=====] - 0s 2ms/step - loss: 0.6169 - accuracy: 0.6976
Epoch 46/100
77/77 [=====] - 0s 2ms/step - loss: 0.6168 - accuracy: 0.6927
Epoch 47/100
77/77 [=====] - 0s 2ms/step - loss: 0.6101 - accuracy: 0.6829
Epoch 48/100
77/77 [=====] - 0s 2ms/step - loss: 0.6085 - accuracy: 0.6748
Epoch 49/100
77/77 [=====] - 0s 2ms/step - loss: 0.6068 - accuracy: 0.6894
Epoch 50/100
77/77 [=====] - 0s 2ms/step - loss: 0.6084 - accuracy: 0.6992
Epoch 51/100
77/77 [=====] - 0s 2ms/step - loss: 0.6088 - accuracy: 0.6976
Epoch 52/100
77/77 [=====] - 0s 2ms/step - loss: 0.6089 - accuracy: 0.6959
Epoch 53/100
77/77 [=====] - 0s 2ms/step - loss: 0.6150 - accuracy: 0.6829
Epoch 54/100
77/77 [=====] - 0s 2ms/step - loss: 0.6064 - accuracy: 0.7089
Epoch 55/100
77/77 [=====] - 0s 2ms/step - loss: 0.6159 - accuracy: 0.6732
Epoch 56/100
77/77 [=====] - 0s 2ms/step - loss: 0.6065 - accuracy: 0.7008
Epoch 57/100
77/77 [=====] - 0s 2ms/step - loss: 0.6076 - accuracy: 0.6959
Epoch 58/100
77/77 [=====] - 0s 2ms/step - loss: 0.6178 - accuracy: 0.6846
Epoch 59/100
77/77 [=====] - 0s 2ms/step - loss: 0.6049 - accuracy: 0.7138
Epoch 60/100
77/77 [=====] - 0s 2ms/step - loss: 0.6208 - accuracy: 0.6715
Epoch 61/100
77/77 [=====] - 0s 3ms/step - loss: 0.6099 - accuracy: 0.6943
Epoch 62/100
77/77 [=====] - 0s 2ms/step - loss: 0.6112 - accuracy: 0.6959
Epoch 63/100
77/77 [=====] - 0s 2ms/step - loss: 0.6067 - accuracy: 0.6976
Epoch 64/100
77/77 [=====] - 0s 2ms/step - loss: 0.6101 - accuracy: 0.6959
Epoch 65/100
77/77 [=====] - 0s 2ms/step - loss: 0.6045 - accuracy: 0.6976
Epoch 66/100
77/77 [=====] - 0s 1ms/step - loss: 0.6164 - accuracy: 0.6813
Epoch 67/100
77/77 [=====] - 0s 2ms/step - loss: 0.6057 - accuracy: 0.7008
Epoch 68/100
77/77 [=====] - 0s 2ms/step - loss: 0.6164 - accuracy: 0.6976
Epoch 69/100
77/77 [=====] - 0s 2ms/step - loss: 0.6064 - accuracy: 0.6911
Epoch 70/100
77/77 [=====] - 0s 2ms/step - loss: 0.5989 - accuracy: 0.7024
Epoch 71/100
77/77 [=====] - 0s 1ms/step - loss: 0.6108 - accuracy: 0.6927
Epoch 72/100
77/77 [=====] - 0s 2ms/step - loss: 0.6059 - accuracy: 0.6846
Epoch 73/100
77/77 [=====] - 0s 2ms/step - loss: 0.6022 - accuracy: 0.7089
Epoch 74/100
77/77 [=====] - 0s 2ms/step - loss: 0.6065 - accuracy: 0.6959
Epoch 75/100
77/77 [=====] - 0s 3ms/step - loss: 0.6066 - accuracy: 0.7138
Epoch 76/100
77/77 [=====] - 0s 2ms/step - loss: 0.6049 - accuracy: 0.6976
Epoch 77/100
77/77 [=====] - 0s 2ms/step - loss: 0.6192 - accuracy: 0.6764
Epoch 78/100
77/77 [=====] - 0s 2ms/step - loss: 0.5941 - accuracy: 0.7236
Epoch 79/100
77/77 [=====] - 0s 1ms/step - loss: 0.6091 - accuracy: 0.6927
Epoch 80/100
77/77 [=====] - 0s 2ms/step - loss: 0.6063 - accuracy: 0.6992
Epoch 81/100

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77/77 [=====] - 0s 2ms/step - loss: 0.6075 - accuracy: 0.6943
Epoch 82/100
77/77 [=====] - 0s 2ms/step - loss: 0.6102 - accuracy: 0.6911
Epoch 83/100
77/77 [=====] - 0s 2ms/step - loss: 0.5905 - accuracy: 0.7073
Epoch 84/100
77/77 [=====] - 0s 2ms/step - loss: 0.6025 - accuracy: 0.6976
Epoch 85/100
77/77 [=====] - 0s 1ms/step - loss: 0.6074 - accuracy: 0.6894
Epoch 86/100
77/77 [=====] - 0s 2ms/step - loss: 0.6131 - accuracy: 0.6813
Epoch 87/100
77/77 [=====] - 0s 2ms/step - loss: 0.6179 - accuracy: 0.6667
Epoch 88/100
77/77 [=====] - 0s 2ms/step - loss: 0.6016 - accuracy: 0.6943
Epoch 89/100
77/77 [=====] - 0s 2ms/step - loss: 0.6090 - accuracy: 0.6862
Epoch 90/100
77/77 [=====] - 0s 2ms/step - loss: 0.5929 - accuracy: 0.7138
Epoch 91/100
77/77 [=====] - 0s 3ms/step - loss: 0.6021 - accuracy: 0.6927
Epoch 92/100
77/77 [=====] - 0s 2ms/step - loss: 0.5998 - accuracy: 0.7024
Epoch 93/100
77/77 [=====] - 0s 2ms/step - loss: 0.6088 - accuracy: 0.6976
Epoch 94/100
77/77 [=====] - 0s 1ms/step - loss: 0.6035 - accuracy: 0.6976
Epoch 95/100
77/77 [=====] - 0s 2ms/step - loss: 0.6036 - accuracy: 0.7089
Epoch 96/100
77/77 [=====] - 0s 2ms/step - loss: 0.5996 - accuracy: 0.6959
Epoch 97/100
77/77 [=====] - 0s 2ms/step - loss: 0.6109 - accuracy: 0.6894
Epoch 98/100
77/77 [=====] - 0s 2ms/step - loss: 0.6018 - accuracy: 0.7138
Epoch 99/100
77/77 [=====] - 0s 1ms/step - loss: 0.6032 - accuracy: 0.7008
Epoch 100/100
77/77 [=====] - 0s 2ms/step - loss: 0.6007 - accuracy: 0.7024
20/20 [=====] - 1s 2ms/step - loss: 0.6685 - accuracy: 0.6471
Epoch 1/50
39/39 [=====] - 0s 1ms/step - loss: 1.0363 - accuracy: 0.6107
Epoch 2/50
39/39 [=====] - 0s 2ms/step - loss: 0.8325 - accuracy: 0.6417
Epoch 3/50
39/39 [=====] - 0s 2ms/step - loss: 0.8258 - accuracy: 0.6596
Epoch 4/50
39/39 [=====] - 0s 2ms/step - loss: 0.8056 - accuracy: 0.6515
Epoch 5/50
39/39 [=====] - 0s 2ms/step - loss: 0.8052 - accuracy: 0.6547
Epoch 6/50
39/39 [=====] - 0s 2ms/step - loss: 0.7896 - accuracy: 0.6580
Epoch 7/50
39/39 [=====] - 0s 2ms/step - loss: 0.7806 - accuracy: 0.6596
Epoch 8/50
39/39 [=====] - 0s 2ms/step - loss: 0.7820 - accuracy: 0.6612
Epoch 9/50
39/39 [=====] - 0s 2ms/step - loss: 0.7757 - accuracy: 0.6661
Epoch 10/50
39/39 [=====] - 0s 2ms/step - loss: 0.7688 - accuracy: 0.6629
Epoch 11/50
39/39 [=====] - 0s 2ms/step - loss: 0.7646 - accuracy: 0.6515
Epoch 12/50
39/39 [=====] - 0s 3ms/step - loss: 0.7620 - accuracy: 0.6580
Epoch 13/50
39/39 [=====] - 0s 2ms/step - loss: 0.7574 - accuracy: 0.6645
Epoch 14/50
39/39 [=====] - 0s 2ms/step - loss: 0.7560 - accuracy: 0.6450
Epoch 15/50
39/39 [=====] - 0s 2ms/step - loss: 0.7513 - accuracy: 0.6531
Epoch 16/50
39/39 [=====] - 0s 2ms/step - loss: 0.7479 - accuracy: 0.6531
Epoch 17/50
39/39 [=====] - 0s 3ms/step - loss: 0.7466 - accuracy: 0.6564
Epoch 18/50
39/39 [=====] - 0s 2ms/step - loss: 0.7423 - accuracy: 0.6515
Epoch 19/50
39/39 [=====] - 0s 2ms/step - loss: 0.7401 - accuracy: 0.6531
Epoch 20/50
39/39 [=====] - 0s 2ms/step - loss: 0.7390 - accuracy: 0.6580
Epoch 21/50
39/39 [=====] - 0s 3ms/step - loss: 0.7316 - accuracy: 0.6531
```


Epoch 22/50
39/39 [=====] - 0s 2ms/step - loss: 0.7312 - accuracy: 0.6743
Epoch 23/50
39/39 [=====] - 0s 3ms/step - loss: 0.7273 - accuracy: 0.6759
Epoch 24/50
39/39 [=====] - 0s 3ms/step - loss: 0.7229 - accuracy: 0.6547
Epoch 25/50
39/39 [=====] - 0s 2ms/step - loss: 0.7228 - accuracy: 0.6645
Epoch 26/50
39/39 [=====] - 0s 3ms/step - loss: 0.7116 - accuracy: 0.6873
Epoch 27/50
39/39 [=====] - 0s 2ms/step - loss: 0.7080 - accuracy: 0.6808
Epoch 28/50
39/39 [=====] - 0s 2ms/step - loss: 0.7108 - accuracy: 0.6857
Epoch 29/50
39/39 [=====] - 0s 2ms/step - loss: 0.7064 - accuracy: 0.6857
Epoch 30/50
39/39 [=====] - 0s 2ms/step - loss: 0.7000 - accuracy: 0.6694
Epoch 31/50
39/39 [=====] - 0s 2ms/step - loss: 0.6988 - accuracy: 0.6775
Epoch 32/50
39/39 [=====] - 0s 2ms/step - loss: 0.6843 - accuracy: 0.6938
Epoch 33/50
39/39 [=====] - 0s 3ms/step - loss: 0.6920 - accuracy: 0.6857
Epoch 34/50
39/39 [=====] - 0s 2ms/step - loss: 0.6891 - accuracy: 0.6987
Epoch 35/50
39/39 [=====] - 0s 2ms/step - loss: 0.6885 - accuracy: 0.6889
Epoch 36/50
39/39 [=====] - 0s 2ms/step - loss: 0.6853 - accuracy: 0.6824
Epoch 37/50
39/39 [=====] - 0s 2ms/step - loss: 0.6863 - accuracy: 0.6873
Epoch 38/50
39/39 [=====] - 0s 2ms/step - loss: 0.6839 - accuracy: 0.6954
Epoch 39/50
39/39 [=====] - 0s 2ms/step - loss: 0.6702 - accuracy: 0.7052
Epoch 40/50
39/39 [=====] - 0s 2ms/step - loss: 0.6878 - accuracy: 0.6922
Epoch 41/50
39/39 [=====] - 0s 2ms/step - loss: 0.6699 - accuracy: 0.7166
Epoch 42/50
39/39 [=====] - 0s 2ms/step - loss: 0.6707 - accuracy: 0.7052
Epoch 43/50
39/39 [=====] - 0s 2ms/step - loss: 0.6814 - accuracy: 0.6889
Epoch 44/50
39/39 [=====] - 0s 2ms/step - loss: 0.6690 - accuracy: 0.6857
Epoch 45/50
39/39 [=====] - 0s 2ms/step - loss: 0.6674 - accuracy: 0.6775
Epoch 46/50
39/39 [=====] - 0s 3ms/step - loss: 0.6643 - accuracy: 0.6906
Epoch 47/50
39/39 [=====] - 0s 2ms/step - loss: 0.6667 - accuracy: 0.7020
Epoch 48/50
39/39 [=====] - 0s 2ms/step - loss: 0.6697 - accuracy: 0.6857
Epoch 49/50
39/39 [=====] - 0s 2ms/step - loss: 0.6571 - accuracy: 0.7101
Epoch 50/50
39/39 [=====] - 0s 3ms/step - loss: 0.6619 - accuracy: 0.6922
10/10 [=====] - 0s 1ms/step - loss: 0.7008 - accuracy: 0.6494
Epoch 1/50
39/39 [=====] - 0s 1ms/step - loss: 5.6585 - accuracy: 0.6270
Epoch 2/50
39/39 [=====] - 0s 2ms/step - loss: 0.8154 - accuracy: 0.6661
Epoch 3/50
39/39 [=====] - 0s 2ms/step - loss: 0.8034 - accuracy: 0.6678
Epoch 4/50
39/39 [=====] - 0s 2ms/step - loss: 0.7946 - accuracy: 0.6694
Epoch 5/50
39/39 [=====] - 0s 2ms/step - loss: 0.7872 - accuracy: 0.6694
Epoch 6/50
39/39 [=====] - 0s 2ms/step - loss: 0.7814 - accuracy: 0.6678
Epoch 7/50
39/39 [=====] - 0s 2ms/step - loss: 0.7763 - accuracy: 0.6694
Epoch 8/50
39/39 [=====] - 0s 2ms/step - loss: 0.7713 - accuracy: 0.6694
Epoch 9/50
39/39 [=====] - 0s 2ms/step - loss: 0.7672 - accuracy: 0.6678
Epoch 10/50
39/39 [=====] - 0s 2ms/step - loss: 0.7631 - accuracy: 0.6694
Epoch 11/50
39/39 [=====] - 0s 2ms/step - loss: 0.7583 - accuracy: 0.6694
Epoch 12/50

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39/39 [=====] - 0s 2ms/step - loss: 0.7487 - accuracy: 0.6694
Epoch 13/50
39/39 [=====] - 0s 2ms/step - loss: 0.7443 - accuracy: 0.6694
Epoch 14/50
39/39 [=====] - 0s 2ms/step - loss: 0.7410 - accuracy: 0.6694
Epoch 15/50
39/39 [=====] - 0s 2ms/step - loss: 0.7411 - accuracy: 0.6694
Epoch 16/50
39/39 [=====] - 0s 2ms/step - loss: 0.7373 - accuracy: 0.6694
Epoch 17/50
39/39 [=====] - 0s 3ms/step - loss: 0.7344 - accuracy: 0.6694
Epoch 18/50
39/39 [=====] - 0s 3ms/step - loss: 0.7315 - accuracy: 0.6678
Epoch 19/50
39/39 [=====] - 0s 2ms/step - loss: 0.7247 - accuracy: 0.6661
Epoch 20/50
39/39 [=====] - 0s 2ms/step - loss: 0.7150 - accuracy: 0.6678
Epoch 21/50
39/39 [=====] - 0s 2ms/step - loss: 0.7118 - accuracy: 0.6678
Epoch 22/50
39/39 [=====] - 0s 3ms/step - loss: 0.7119 - accuracy: 0.6694
Epoch 23/50
39/39 [=====] - 0s 2ms/step - loss: 0.7039 - accuracy: 0.6678
Epoch 24/50
39/39 [=====] - 0s 2ms/step - loss: 0.6967 - accuracy: 0.6710
Epoch 25/50
39/39 [=====] - 0s 2ms/step - loss: 0.7136 - accuracy: 0.6678
Epoch 26/50
39/39 [=====] - 0s 2ms/step - loss: 0.6998 - accuracy: 0.6678
Epoch 27/50
39/39 [=====] - 0s 2ms/step - loss: 0.6910 - accuracy: 0.6694
Epoch 28/50
39/39 [=====] - 0s 2ms/step - loss: 0.6782 - accuracy: 0.6857
Epoch 29/50
39/39 [=====] - 0s 2ms/step - loss: 0.6753 - accuracy: 0.6873
Epoch 30/50
39/39 [=====] - 0s 3ms/step - loss: 0.6696 - accuracy: 0.6987
Epoch 31/50
39/39 [=====] - 0s 3ms/step - loss: 0.6654 - accuracy: 0.7036
Epoch 32/50
39/39 [=====] - 0s 3ms/step - loss: 0.6701 - accuracy: 0.6971
Epoch 33/50
39/39 [=====] - 0s 2ms/step - loss: 0.6546 - accuracy: 0.7182
Epoch 34/50
39/39 [=====] - 0s 2ms/step - loss: 0.6586 - accuracy: 0.7166
Epoch 35/50
39/39 [=====] - 0s 2ms/step - loss: 0.6566 - accuracy: 0.6971
Epoch 36/50
39/39 [=====] - 0s 2ms/step - loss: 0.6529 - accuracy: 0.7068
Epoch 37/50
39/39 [=====] - 0s 2ms/step - loss: 0.6484 - accuracy: 0.7036
Epoch 38/50
39/39 [=====] - 0s 2ms/step - loss: 0.6380 - accuracy: 0.7134
Epoch 39/50
39/39 [=====] - 0s 2ms/step - loss: 0.6480 - accuracy: 0.7150
Epoch 40/50
39/39 [=====] - 0s 2ms/step - loss: 0.6421 - accuracy: 0.7101
Epoch 41/50
39/39 [=====] - 0s 2ms/step - loss: 0.6411 - accuracy: 0.7101
Epoch 42/50
39/39 [=====] - 0s 2ms/step - loss: 0.6333 - accuracy: 0.7345
Epoch 43/50
39/39 [=====] - 0s 2ms/step - loss: 0.6390 - accuracy: 0.7166
Epoch 44/50
39/39 [=====] - 0s 2ms/step - loss: 0.6407 - accuracy: 0.7313
Epoch 45/50
39/39 [=====] - 0s 2ms/step - loss: 0.6373 - accuracy: 0.7280
Epoch 46/50
39/39 [=====] - 0s 3ms/step - loss: 0.6339 - accuracy: 0.7248
Epoch 47/50
39/39 [=====] - 0s 2ms/step - loss: 0.6334 - accuracy: 0.7166
Epoch 48/50
39/39 [=====] - 0s 3ms/step - loss: 0.6358 - accuracy: 0.7231
Epoch 49/50
39/39 [=====] - 0s 2ms/step - loss: 0.6280 - accuracy: 0.7345
Epoch 50/50
39/39 [=====] - 0s 2ms/step - loss: 0.6322 - accuracy: 0.7150
10/10 [=====] - 0s 1ms/step - loss: 1.1442 - accuracy: 0.6494
Epoch 1/50
39/39 [=====] - 0s 1ms/step - loss: 1.6465 - accuracy: 0.6173
Epoch 2/50
39/39 [=====] - 0s 2ms/step - loss: 0.8117 - accuracy: 0.6336
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Epoch 3/50
39/39 [=====] - 0s 3ms/step - loss: 0.7810 - accuracy: 0.6466
Epoch 4/50
39/39 [=====] - 0s 3ms/step - loss: 0.7697 - accuracy: 0.6661
Epoch 5/50
39/39 [=====] - 0s 2ms/step - loss: 0.7622 - accuracy: 0.6417
Epoch 6/50
39/39 [=====] - 0s 2ms/step - loss: 0.7548 - accuracy: 0.6629
Epoch 7/50
39/39 [=====] - 0s 2ms/step - loss: 0.7563 - accuracy: 0.6661
Epoch 8/50
39/39 [=====] - 0s 2ms/step - loss: 0.7448 - accuracy: 0.6629
Epoch 9/50
39/39 [=====] - 0s 2ms/step - loss: 0.7479 - accuracy: 0.6694
Epoch 10/50
39/39 [=====] - 0s 2ms/step - loss: 0.7470 - accuracy: 0.6596
Epoch 11/50
39/39 [=====] - 0s 2ms/step - loss: 0.7388 - accuracy: 0.6564
Epoch 12/50
39/39 [=====] - 0s 2ms/step - loss: 0.7413 - accuracy: 0.6775
Epoch 13/50
39/39 [=====] - 0s 2ms/step - loss: 0.7329 - accuracy: 0.6580
Epoch 14/50
39/39 [=====] - 0s 2ms/step - loss: 0.7303 - accuracy: 0.6743
Epoch 15/50
39/39 [=====] - 0s 2ms/step - loss: 0.7284 - accuracy: 0.6808
Epoch 16/50
39/39 [=====] - 0s 3ms/step - loss: 0.7211 - accuracy: 0.6743
Epoch 17/50
39/39 [=====] - 0s 2ms/step - loss: 0.7248 - accuracy: 0.6759
Epoch 18/50
39/39 [=====] - 0s 3ms/step - loss: 0.7243 - accuracy: 0.6612
Epoch 19/50
39/39 [=====] - 0s 2ms/step - loss: 0.7170 - accuracy: 0.6922
Epoch 20/50
39/39 [=====] - 0s 3ms/step - loss: 0.7145 - accuracy: 0.6824
Epoch 21/50
39/39 [=====] - 0s 3ms/step - loss: 0.7073 - accuracy: 0.6808
Epoch 22/50
39/39 [=====] - 0s 3ms/step - loss: 0.7139 - accuracy: 0.6694
Epoch 23/50
39/39 [=====] - 0s 3ms/step - loss: 0.7051 - accuracy: 0.6808
Epoch 24/50
39/39 [=====] - 0s 3ms/step - loss: 0.7041 - accuracy: 0.6710
Epoch 25/50
39/39 [=====] - 0s 2ms/step - loss: 0.7009 - accuracy: 0.6710
Epoch 26/50
39/39 [=====] - 0s 4ms/step - loss: 0.7081 - accuracy: 0.6629
Epoch 27/50
39/39 [=====] - 0s 3ms/step - loss: 0.7016 - accuracy: 0.6759
Epoch 28/50
39/39 [=====] - 0s 2ms/step - loss: 0.7027 - accuracy: 0.6726
Epoch 29/50
39/39 [=====] - 0s 2ms/step - loss: 0.6955 - accuracy: 0.6775
Epoch 30/50
39/39 [=====] - 0s 2ms/step - loss: 0.6963 - accuracy: 0.6645
Epoch 31/50
39/39 [=====] - 0s 3ms/step - loss: 0.6872 - accuracy: 0.6710
Epoch 32/50
39/39 [=====] - 0s 2ms/step - loss: 0.6910 - accuracy: 0.6808
Epoch 33/50
39/39 [=====] - 0s 2ms/step - loss: 0.6900 - accuracy: 0.6743
Epoch 34/50
39/39 [=====] - 0s 2ms/step - loss: 0.6841 - accuracy: 0.6743
Epoch 35/50
39/39 [=====] - 0s 2ms/step - loss: 0.6881 - accuracy: 0.6873
Epoch 36/50
39/39 [=====] - 0s 3ms/step - loss: 0.6819 - accuracy: 0.6694
Epoch 37/50
39/39 [=====] - 0s 2ms/step - loss: 0.6831 - accuracy: 0.6808
Epoch 38/50
39/39 [=====] - 0s 2ms/step - loss: 0.6895 - accuracy: 0.6775
Epoch 39/50
39/39 [=====] - 0s 2ms/step - loss: 0.6874 - accuracy: 0.6857
Epoch 40/50
39/39 [=====] - 0s 2ms/step - loss: 0.6794 - accuracy: 0.6726
Epoch 41/50
39/39 [=====] - 0s 2ms/step - loss: 0.6752 - accuracy: 0.6840
Epoch 42/50
39/39 [=====] - 0s 2ms/step - loss: 0.6845 - accuracy: 0.6743
Epoch 43/50
39/39 [=====] - 0s 2ms/step - loss: 0.6668 - accuracy: 0.6857
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Epoch 44/50
39/39 [=====] - 0s 2ms/step - loss: 0.6676 - accuracy: 0.6857
Epoch 45/50
39/39 [=====] - 0s 3ms/step - loss: 0.6733 - accuracy: 0.6759
Epoch 46/50
39/39 [=====] - 0s 2ms/step - loss: 0.6607 - accuracy: 0.6922
Epoch 47/50
39/39 [=====] - 0s 3ms/step - loss: 0.6686 - accuracy: 0.6775
Epoch 48/50
39/39 [=====] - 0s 3ms/step - loss: 0.6657 - accuracy: 0.6889
Epoch 49/50
39/39 [=====] - 0s 3ms/step - loss: 0.6702 - accuracy: 0.6726
Epoch 50/50
39/39 [=====] - 0s 2ms/step - loss: 0.6642 - accuracy: 0.6759
10/10 [=====] - 0s 1ms/step - loss: 0.6343 - accuracy: 0.7143
Epoch 1/50
39/39 [=====] - 0s 1ms/step - loss: 2.8516 - accuracy: 0.5642
Epoch 2/50
39/39 [=====] - 0s 2ms/step - loss: 0.8400 - accuracy: 0.5854
Epoch 3/50
39/39 [=====] - 0s 2ms/step - loss: 0.8094 - accuracy: 0.6081
Epoch 4/50
39/39 [=====] - 0s 2ms/step - loss: 0.8003 - accuracy: 0.6195
Epoch 5/50
39/39 [=====] - 0s 2ms/step - loss: 0.7966 - accuracy: 0.6228
Epoch 6/50
39/39 [=====] - 0s 2ms/step - loss: 0.7910 - accuracy: 0.6325
Epoch 7/50
39/39 [=====] - 0s 2ms/step - loss: 0.7800 - accuracy: 0.6407
Epoch 8/50
39/39 [=====] - 0s 2ms/step - loss: 0.7771 - accuracy: 0.6098
Epoch 9/50
39/39 [=====] - 0s 2ms/step - loss: 0.7680 - accuracy: 0.6537
Epoch 10/50
39/39 [=====] - 0s 2ms/step - loss: 0.7621 - accuracy: 0.6390
Epoch 11/50
39/39 [=====] - 0s 2ms/step - loss: 0.7510 - accuracy: 0.6520
Epoch 12/50
39/39 [=====] - 0s 2ms/step - loss: 0.7622 - accuracy: 0.6293
Epoch 13/50
39/39 [=====] - 0s 2ms/step - loss: 0.7516 - accuracy: 0.6472
Epoch 14/50
39/39 [=====] - 0s 2ms/step - loss: 0.7360 - accuracy: 0.6439
Epoch 15/50
39/39 [=====] - 0s 2ms/step - loss: 0.7399 - accuracy: 0.6439
Epoch 16/50
39/39 [=====] - 0s 2ms/step - loss: 0.7381 - accuracy: 0.6520
Epoch 17/50
39/39 [=====] - 0s 2ms/step - loss: 0.7249 - accuracy: 0.6585
Epoch 18/50
39/39 [=====] - 0s 3ms/step - loss: 0.7325 - accuracy: 0.6439
Epoch 19/50
39/39 [=====] - 0s 3ms/step - loss: 0.7269 - accuracy: 0.6293
Epoch 20/50
39/39 [=====] - 0s 2ms/step - loss: 0.7253 - accuracy: 0.6472
Epoch 21/50
39/39 [=====] - 0s 2ms/step - loss: 0.7274 - accuracy: 0.6488
Epoch 22/50
39/39 [=====] - 0s 2ms/step - loss: 0.7286 - accuracy: 0.6553
Epoch 23/50
39/39 [=====] - 0s 2ms/step - loss: 0.7168 - accuracy: 0.6504
Epoch 24/50
39/39 [=====] - 0s 2ms/step - loss: 0.7139 - accuracy: 0.6488
Epoch 25/50
39/39 [=====] - 0s 2ms/step - loss: 0.7082 - accuracy: 0.6667
Epoch 26/50
39/39 [=====] - 0s 2ms/step - loss: 0.7164 - accuracy: 0.6439
Epoch 27/50
39/39 [=====] - 0s 2ms/step - loss: 0.7064 - accuracy: 0.6602
Epoch 28/50
39/39 [=====] - 0s 2ms/step - loss: 0.7074 - accuracy: 0.6585
Epoch 29/50
39/39 [=====] - 0s 2ms/step - loss: 0.7053 - accuracy: 0.6537
Epoch 30/50
39/39 [=====] - 0s 2ms/step - loss: 0.7062 - accuracy: 0.6569
Epoch 31/50
39/39 [=====] - 0s 2ms/step - loss: 0.6928 - accuracy: 0.6764
Epoch 32/50
39/39 [=====] - 0s 2ms/step - loss: 0.7030 - accuracy: 0.6553
Epoch 33/50
39/39 [=====] - 0s 2ms/step - loss: 0.6967 - accuracy: 0.6683
Epoch 34/50
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39/39 [=====] - 0s 2ms/step - loss: 0.6989 - accuracy: 0.6537
Epoch 35/50
39/39 [=====] - 0s 2ms/step - loss: 0.6939 - accuracy: 0.6618
Epoch 36/50
39/39 [=====] - 0s 3ms/step - loss: 0.6911 - accuracy: 0.6537
Epoch 37/50
39/39 [=====] - 0s 2ms/step - loss: 0.6889 - accuracy: 0.6650
Epoch 38/50
39/39 [=====] - 0s 3ms/step - loss: 0.6921 - accuracy: 0.6553
Epoch 39/50
39/39 [=====] - 0s 2ms/step - loss: 0.6934 - accuracy: 0.6585
Epoch 40/50
39/39 [=====] - 0s 2ms/step - loss: 0.6889 - accuracy: 0.6602
Epoch 41/50
39/39 [=====] - 0s 2ms/step - loss: 0.6957 - accuracy: 0.6602
Epoch 42/50
39/39 [=====] - 0s 3ms/step - loss: 0.6845 - accuracy: 0.6602
Epoch 43/50
39/39 [=====] - 0s 3ms/step - loss: 0.6829 - accuracy: 0.6699
Epoch 44/50
39/39 [=====] - 0s 2ms/step - loss: 0.6836 - accuracy: 0.6472
Epoch 45/50
39/39 [=====] - 0s 2ms/step - loss: 0.6866 - accuracy: 0.6569
Epoch 46/50
39/39 [=====] - 0s 2ms/step - loss: 0.6834 - accuracy: 0.6537
Epoch 47/50
39/39 [=====] - 0s 2ms/step - loss: 0.6794 - accuracy: 0.6618
Epoch 48/50
39/39 [=====] - 0s 2ms/step - loss: 0.6741 - accuracy: 0.6813
Epoch 49/50
39/39 [=====] - 0s 2ms/step - loss: 0.6746 - accuracy: 0.6602
Epoch 50/50
39/39 [=====] - 0s 2ms/step - loss: 0.6748 - accuracy: 0.6618
10/10 [=====] - 0s 1ms/step - loss: 0.6424 - accuracy: 0.7386
Epoch 1/50
39/39 [=====] - 0s 2ms/step - loss: 1.4518 - accuracy: 0.6325
Epoch 2/50
39/39 [=====] - 0s 2ms/step - loss: 0.8491 - accuracy: 0.6504
Epoch 3/50
39/39 [=====] - 0s 2ms/step - loss: 0.8275 - accuracy: 0.6520
Epoch 4/50
39/39 [=====] - 0s 2ms/step - loss: 0.8290 - accuracy: 0.6472
Epoch 5/50
39/39 [=====] - 0s 2ms/step - loss: 0.8210 - accuracy: 0.6569
Epoch 6/50
39/39 [=====] - 0s 2ms/step - loss: 0.8141 - accuracy: 0.6553
Epoch 7/50
39/39 [=====] - 0s 2ms/step - loss: 0.8070 - accuracy: 0.6569
Epoch 8/50
39/39 [=====] - 0s 2ms/step - loss: 0.8015 - accuracy: 0.6585
Epoch 9/50
39/39 [=====] - 0s 2ms/step - loss: 0.7965 - accuracy: 0.6585
Epoch 10/50
39/39 [=====] - 0s 3ms/step - loss: 0.7925 - accuracy: 0.6585
Epoch 11/50
39/39 [=====] - 0s 2ms/step - loss: 0.7887 - accuracy: 0.6553
Epoch 12/50
39/39 [=====] - 0s 2ms/step - loss: 0.7853 - accuracy: 0.6602
Epoch 13/50
39/39 [=====] - 0s 3ms/step - loss: 0.7820 - accuracy: 0.6585
Epoch 14/50
39/39 [=====] - 0s 2ms/step - loss: 0.7786 - accuracy: 0.6602
Epoch 15/50
39/39 [=====] - 0s 3ms/step - loss: 0.7758 - accuracy: 0.6618
Epoch 16/50
39/39 [=====] - 0s 2ms/step - loss: 0.7730 - accuracy: 0.6585
Epoch 17/50
39/39 [=====] - 0s 2ms/step - loss: 0.7704 - accuracy: 0.6602
Epoch 18/50
39/39 [=====] - 0s 2ms/step - loss: 0.7681 - accuracy: 0.6634
Epoch 19/50
39/39 [=====] - 0s 2ms/step - loss: 0.7654 - accuracy: 0.6634
Epoch 20/50
39/39 [=====] - 0s 2ms/step - loss: 0.7634 - accuracy: 0.6618
Epoch 21/50
39/39 [=====] - 0s 2ms/step - loss: 0.7613 - accuracy: 0.6569
Epoch 22/50
39/39 [=====] - 0s 2ms/step - loss: 0.7595 - accuracy: 0.6585
Epoch 23/50
39/39 [=====] - 0s 2ms/step - loss: 0.7572 - accuracy: 0.6585
Epoch 24/50
39/39 [=====] - 0s 2ms/step - loss: 0.7553 - accuracy: 0.6585

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Epoch 25/50
39/39 [=====] - 0s 2ms/step - loss: 0.7532 - accuracy: 0.6585
Epoch 26/50
39/39 [=====] - 0s 2ms/step - loss: 0.7514 - accuracy: 0.6602
Epoch 27/50
39/39 [=====] - 0s 2ms/step - loss: 0.7493 - accuracy: 0.6585
Epoch 28/50
39/39 [=====] - 0s 3ms/step - loss: 0.7474 - accuracy: 0.6618
Epoch 29/50
39/39 [=====] - 0s 2ms/step - loss: 0.7459 - accuracy: 0.6585
Epoch 30/50
39/39 [=====] - 0s 2ms/step - loss: 0.7441 - accuracy: 0.6602
Epoch 31/50
39/39 [=====] - 0s 2ms/step - loss: 0.7424 - accuracy: 0.6602
Epoch 32/50
39/39 [=====] - 0s 2ms/step - loss: 0.7410 - accuracy: 0.6602
Epoch 33/50
39/39 [=====] - 0s 2ms/step - loss: 0.7393 - accuracy: 0.6585
Epoch 34/50
39/39 [=====] - 0s 2ms/step - loss: 0.7376 - accuracy: 0.6585
Epoch 35/50
39/39 [=====] - 0s 3ms/step - loss: 0.7365 - accuracy: 0.6634
Epoch 36/50
39/39 [=====] - 0s 3ms/step - loss: 0.7346 - accuracy: 0.6618
Epoch 37/50
39/39 [=====] - 0s 2ms/step - loss: 0.7332 - accuracy: 0.6602
Epoch 38/50
39/39 [=====] - 0s 1ms/step - loss: 0.7318 - accuracy: 0.6602
Epoch 39/50
39/39 [=====] - 0s 1ms/step - loss: 0.7302 - accuracy: 0.6602
Epoch 40/50
39/39 [=====] - 0s 2ms/step - loss: 0.7287 - accuracy: 0.6602
Epoch 41/50
39/39 [=====] - 0s 2ms/step - loss: 0.7276 - accuracy: 0.6634
Epoch 42/50
39/39 [=====] - 0s 2ms/step - loss: 0.7261 - accuracy: 0.6602
Epoch 43/50
39/39 [=====] - 0s 2ms/step - loss: 0.7253 - accuracy: 0.6602
Epoch 44/50
39/39 [=====] - 0s 2ms/step - loss: 0.7225 - accuracy: 0.6618
Epoch 45/50
39/39 [=====] - 0s 2ms/step - loss: 0.7199 - accuracy: 0.6634
Epoch 46/50
39/39 [=====] - 0s 2ms/step - loss: 0.7129 - accuracy: 0.6732
Epoch 47/50
39/39 [=====] - 0s 2ms/step - loss: 0.7105 - accuracy: 0.6634
Epoch 48/50
39/39 [=====] - 0s 2ms/step - loss: 0.7078 - accuracy: 0.6650
Epoch 49/50
39/39 [=====] - 0s 2ms/step - loss: 0.7060 - accuracy: 0.6585
Epoch 50/50
39/39 [=====] - 0s 2ms/step - loss: 0.7033 - accuracy: 0.6813
10/10 [=====] - 0s 1ms/step - loss: 0.7022 - accuracy: 0.6471
Epoch 1/50
39/39 [=====] - 0s 1ms/step - loss: 3.5291 - accuracy: 0.6124
Epoch 2/50
39/39 [=====] - 0s 2ms/step - loss: 1.9665 - accuracy: 0.6596
Epoch 3/50
39/39 [=====] - 0s 2ms/step - loss: 1.7766 - accuracy: 0.6515
Epoch 4/50
39/39 [=====] - 0s 2ms/step - loss: 1.6003 - accuracy: 0.6531
Epoch 5/50
39/39 [=====] - 0s 2ms/step - loss: 1.4595 - accuracy: 0.6564
Epoch 6/50
39/39 [=====] - 0s 3ms/step - loss: 1.3399 - accuracy: 0.6531
Epoch 7/50
39/39 [=====] - 0s 3ms/step - loss: 1.2367 - accuracy: 0.6482
Epoch 8/50
39/39 [=====] - 0s 2ms/step - loss: 1.1499 - accuracy: 0.6531
Epoch 9/50
39/39 [=====] - 0s 2ms/step - loss: 1.0733 - accuracy: 0.6498
Epoch 10/50
39/39 [=====] - 0s 2ms/step - loss: 1.0101 - accuracy: 0.6498
Epoch 11/50
39/39 [=====] - 0s 2ms/step - loss: 0.9586 - accuracy: 0.6564
Epoch 12/50
39/39 [=====] - 0s 2ms/step - loss: 0.9150 - accuracy: 0.6661
Epoch 13/50
39/39 [=====] - 0s 2ms/step - loss: 0.8720 - accuracy: 0.6417
Epoch 14/50
39/39 [=====] - 0s 2ms/step - loss: 0.8381 - accuracy: 0.6661
Epoch 15/50
```

39/39 [=====] - 0s 2ms/step - loss: 0.8048 - accuracy: 0.6596
Epoch 16/50
39/39 [=====] - 0s 2ms/step - loss: 0.7747 - accuracy: 0.6531
Epoch 17/50
39/39 [=====] - 0s 2ms/step - loss: 0.7554 - accuracy: 0.6678
Epoch 18/50
39/39 [=====] - 0s 2ms/step - loss: 0.7389 - accuracy: 0.6580
Epoch 19/50
39/39 [=====] - 0s 2ms/step - loss: 0.7215 - accuracy: 0.6678
Epoch 20/50
39/39 [=====] - 0s 2ms/step - loss: 0.7072 - accuracy: 0.6661
Epoch 21/50
39/39 [=====] - 0s 3ms/step - loss: 0.6942 - accuracy: 0.6710
Epoch 22/50
39/39 [=====] - 0s 3ms/step - loss: 0.6841 - accuracy: 0.6645
Epoch 23/50
39/39 [=====] - 0s 2ms/step - loss: 0.6786 - accuracy: 0.6824
Epoch 24/50
39/39 [=====] - 0s 2ms/step - loss: 0.6668 - accuracy: 0.6694
Epoch 25/50
39/39 [=====] - 0s 2ms/step - loss: 0.6634 - accuracy: 0.6694
Epoch 26/50
39/39 [=====] - 0s 2ms/step - loss: 0.6590 - accuracy: 0.6710
Epoch 27/50
39/39 [=====] - 0s 2ms/step - loss: 0.6533 - accuracy: 0.6726
Epoch 28/50
39/39 [=====] - 0s 3ms/step - loss: 0.6532 - accuracy: 0.6824
Epoch 29/50
39/39 [=====] - 0s 2ms/step - loss: 0.6442 - accuracy: 0.6808
Epoch 30/50
39/39 [=====] - 0s 2ms/step - loss: 0.6520 - accuracy: 0.6498
Epoch 31/50
39/39 [=====] - 0s 2ms/step - loss: 0.6433 - accuracy: 0.6889
Epoch 32/50
39/39 [=====] - 0s 2ms/step - loss: 0.6434 - accuracy: 0.6808
Epoch 33/50
39/39 [=====] - 0s 2ms/step - loss: 0.6358 - accuracy: 0.6726
Epoch 34/50
39/39 [=====] - 0s 2ms/step - loss: 0.6412 - accuracy: 0.6726
Epoch 35/50
39/39 [=====] - 0s 2ms/step - loss: 0.6368 - accuracy: 0.6743
Epoch 36/50
39/39 [=====] - 0s 2ms/step - loss: 0.6430 - accuracy: 0.6661
Epoch 37/50
39/39 [=====] - 0s 2ms/step - loss: 0.6322 - accuracy: 0.6775
Epoch 38/50
39/39 [=====] - 0s 2ms/step - loss: 0.6330 - accuracy: 0.6808
Epoch 39/50
39/39 [=====] - 0s 2ms/step - loss: 0.6254 - accuracy: 0.6922
Epoch 40/50
39/39 [=====] - 0s 2ms/step - loss: 0.6387 - accuracy: 0.6840
Epoch 41/50
39/39 [=====] - 0s 4ms/step - loss: 0.6268 - accuracy: 0.6873
Epoch 42/50
39/39 [=====] - 0s 3ms/step - loss: 0.6203 - accuracy: 0.6906
Epoch 43/50
39/39 [=====] - 0s 2ms/step - loss: 0.6264 - accuracy: 0.6906
Epoch 44/50
39/39 [=====] - 0s 2ms/step - loss: 0.6345 - accuracy: 0.6873
Epoch 45/50
39/39 [=====] - 0s 2ms/step - loss: 0.6198 - accuracy: 0.6857
Epoch 46/50
39/39 [=====] - 0s 2ms/step - loss: 0.6132 - accuracy: 0.6857
Epoch 47/50
39/39 [=====] - 0s 2ms/step - loss: 0.6294 - accuracy: 0.6759
Epoch 48/50
39/39 [=====] - 0s 2ms/step - loss: 0.6236 - accuracy: 0.6775
Epoch 49/50
39/39 [=====] - 0s 2ms/step - loss: 0.6249 - accuracy: 0.6775
Epoch 50/50
39/39 [=====] - 0s 2ms/step - loss: 0.6215 - accuracy: 0.6824
10/10 [=====] - 0s 1ms/step - loss: 0.6255 - accuracy: 0.6623
Epoch 1/50
39/39 [=====] - 0s 2ms/step - loss: 2.7744 - accuracy: 0.5684
Epoch 2/50
39/39 [=====] - 0s 2ms/step - loss: 1.8814 - accuracy: 0.6433
Epoch 3/50
39/39 [=====] - 0s 2ms/step - loss: 1.7082 - accuracy: 0.6336
Epoch 4/50
39/39 [=====] - 0s 2ms/step - loss: 1.5402 - accuracy: 0.6645
Epoch 5/50
39/39 [=====] - 0s 3ms/step - loss: 1.4000 - accuracy: 0.6694

Epoch 6/50
39/39 [=====] - 0s 2ms/step - loss: 1.2918 - accuracy: 0.6759
Epoch 7/50
39/39 [=====] - 0s 2ms/step - loss: 1.1893 - accuracy: 0.6759
Epoch 8/50
39/39 [=====] - 0s 2ms/step - loss: 1.1123 - accuracy: 0.6661
Epoch 9/50
39/39 [=====] - 0s 2ms/step - loss: 1.0413 - accuracy: 0.6759
Epoch 10/50
39/39 [=====] - 0s 2ms/step - loss: 0.9833 - accuracy: 0.6726
Epoch 11/50
39/39 [=====] - 0s 2ms/step - loss: 0.9332 - accuracy: 0.6710
Epoch 12/50
39/39 [=====] - 0s 2ms/step - loss: 0.8891 - accuracy: 0.6710
Epoch 13/50
39/39 [=====] - 0s 2ms/step - loss: 0.8519 - accuracy: 0.6726
Epoch 14/50
39/39 [=====] - 0s 2ms/step - loss: 0.8186 - accuracy: 0.6743
Epoch 15/50
39/39 [=====] - 0s 2ms/step - loss: 0.7906 - accuracy: 0.6759
Epoch 16/50
39/39 [=====] - 0s 2ms/step - loss: 0.7668 - accuracy: 0.6694
Epoch 17/50
39/39 [=====] - 0s 2ms/step - loss: 0.7467 - accuracy: 0.6743
Epoch 18/50
39/39 [=====] - 0s 2ms/step - loss: 0.7264 - accuracy: 0.6678
Epoch 19/50
39/39 [=====] - 0s 2ms/step - loss: 0.7141 - accuracy: 0.6726
Epoch 20/50
39/39 [=====] - 0s 2ms/step - loss: 0.7038 - accuracy: 0.6678
Epoch 21/50
39/39 [=====] - 0s 2ms/step - loss: 0.6935 - accuracy: 0.6678
Epoch 22/50
39/39 [=====] - 0s 2ms/step - loss: 0.6773 - accuracy: 0.6710
Epoch 23/50
39/39 [=====] - 0s 2ms/step - loss: 0.6716 - accuracy: 0.6775
Epoch 24/50
39/39 [=====] - 0s 2ms/step - loss: 0.6677 - accuracy: 0.6759
Epoch 25/50
39/39 [=====] - 0s 4ms/step - loss: 0.6617 - accuracy: 0.6710
Epoch 26/50
39/39 [=====] - 0s 2ms/step - loss: 0.6612 - accuracy: 0.6726
Epoch 27/50
39/39 [=====] - 0s 2ms/step - loss: 0.6500 - accuracy: 0.6710
Epoch 28/50
39/39 [=====] - 0s 2ms/step - loss: 0.6506 - accuracy: 0.6661
Epoch 29/50
39/39 [=====] - 0s 3ms/step - loss: 0.6424 - accuracy: 0.6710
Epoch 30/50
39/39 [=====] - 0s 2ms/step - loss: 0.6467 - accuracy: 0.6694
Epoch 31/50
39/39 [=====] - 0s 2ms/step - loss: 0.6420 - accuracy: 0.6678
Epoch 32/50
39/39 [=====] - 0s 2ms/step - loss: 0.6353 - accuracy: 0.6629
Epoch 33/50
39/39 [=====] - 0s 2ms/step - loss: 0.6365 - accuracy: 0.6775
Epoch 34/50
39/39 [=====] - 0s 2ms/step - loss: 0.6313 - accuracy: 0.6775
Epoch 35/50
39/39 [=====] - 0s 2ms/step - loss: 0.6274 - accuracy: 0.6906
Epoch 36/50
39/39 [=====] - 0s 2ms/step - loss: 0.6210 - accuracy: 0.6840
Epoch 37/50
39/39 [=====] - 0s 2ms/step - loss: 0.6245 - accuracy: 0.6743
Epoch 38/50
39/39 [=====] - 0s 2ms/step - loss: 0.6215 - accuracy: 0.6873
Epoch 39/50
39/39 [=====] - 0s 2ms/step - loss: 0.6248 - accuracy: 0.6971
Epoch 40/50
39/39 [=====] - 0s 3ms/step - loss: 0.6213 - accuracy: 0.6906
Epoch 41/50
39/39 [=====] - 0s 3ms/step - loss: 0.6184 - accuracy: 0.6922
Epoch 42/50
39/39 [=====] - 0s 2ms/step - loss: 0.6205 - accuracy: 0.6906
Epoch 43/50
39/39 [=====] - 0s 2ms/step - loss: 0.6159 - accuracy: 0.6938
Epoch 44/50
39/39 [=====] - 0s 2ms/step - loss: 0.6161 - accuracy: 0.7003
Epoch 45/50
39/39 [=====] - 0s 3ms/step - loss: 0.6121 - accuracy: 0.6906
Epoch 46/50
39/39 [=====] - 0s 2ms/step - loss: 0.6101 - accuracy: 0.6922


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Epoch 47/50
39/39 [=====] - 0s 2ms/step - loss: 0.6181 - accuracy: 0.6906
Epoch 48/50
39/39 [=====] - 0s 2ms/step - loss: 0.6125 - accuracy: 0.6873
Epoch 49/50
39/39 [=====] - 0s 2ms/step - loss: 0.6222 - accuracy: 0.6775
Epoch 50/50
39/39 [=====] - 0s 2ms/step - loss: 0.6189 - accuracy: 0.6971
10/10 [=====] - 0s 1ms/step - loss: 0.6468 - accuracy: 0.6623
Epoch 1/50
39/39 [=====] - 0s 1ms/step - loss: 2.6608 - accuracy: 0.6531
Epoch 2/50
39/39 [=====] - 0s 2ms/step - loss: 1.9949 - accuracy: 0.6303
Epoch 3/50
39/39 [=====] - 0s 2ms/step - loss: 1.7853 - accuracy: 0.6417
Epoch 4/50
39/39 [=====] - 0s 2ms/step - loss: 1.6180 - accuracy: 0.6645
Epoch 5/50
39/39 [=====] - 0s 2ms/step - loss: 1.4719 - accuracy: 0.6450
Epoch 6/50
39/39 [=====] - 0s 2ms/step - loss: 1.3415 - accuracy: 0.6629
Epoch 7/50
39/39 [=====] - 0s 2ms/step - loss: 1.2478 - accuracy: 0.6612
Epoch 8/50
39/39 [=====] - 0s 2ms/step - loss: 1.1516 - accuracy: 0.6743
Epoch 9/50
39/39 [=====] - 0s 2ms/step - loss: 1.0759 - accuracy: 0.6580
Epoch 10/50
39/39 [=====] - 0s 2ms/step - loss: 1.0142 - accuracy: 0.6775
Epoch 11/50
39/39 [=====] - 0s 4ms/step - loss: 0.9537 - accuracy: 0.6840
Epoch 12/50
39/39 [=====] - 0s 3ms/step - loss: 0.9134 - accuracy: 0.6743
Epoch 13/50
39/39 [=====] - 0s 2ms/step - loss: 0.8633 - accuracy: 0.6759
Epoch 14/50
39/39 [=====] - 0s 3ms/step - loss: 0.8296 - accuracy: 0.6857
Epoch 15/50
39/39 [=====] - 0s 2ms/step - loss: 0.7972 - accuracy: 0.6889
Epoch 16/50
39/39 [=====] - 0s 3ms/step - loss: 0.7862 - accuracy: 0.6889
Epoch 17/50
39/39 [=====] - 0s 2ms/step - loss: 0.7568 - accuracy: 0.6889
Epoch 18/50
39/39 [=====] - 0s 2ms/step - loss: 0.7436 - accuracy: 0.6792
Epoch 19/50
39/39 [=====] - 0s 2ms/step - loss: 0.7271 - accuracy: 0.6873
Epoch 20/50
39/39 [=====] - 0s 2ms/step - loss: 0.7081 - accuracy: 0.6938
Epoch 21/50
39/39 [=====] - 0s 3ms/step - loss: 0.6999 - accuracy: 0.6840
Epoch 22/50
39/39 [=====] - 0s 2ms/step - loss: 0.6979 - accuracy: 0.6987
Epoch 23/50
39/39 [=====] - 0s 3ms/step - loss: 0.6878 - accuracy: 0.6889
Epoch 24/50
39/39 [=====] - 0s 2ms/step - loss: 0.6788 - accuracy: 0.6922
Epoch 25/50
39/39 [=====] - 0s 2ms/step - loss: 0.6669 - accuracy: 0.6824
Epoch 26/50
39/39 [=====] - 0s 2ms/step - loss: 0.6546 - accuracy: 0.6906
Epoch 27/50
39/39 [=====] - 0s 3ms/step - loss: 0.6654 - accuracy: 0.6743
Epoch 28/50
39/39 [=====] - 0s 2ms/step - loss: 0.6516 - accuracy: 0.6971
Epoch 29/50
39/39 [=====] - 0s 2ms/step - loss: 0.6474 - accuracy: 0.6906
Epoch 30/50
39/39 [=====] - 0s 2ms/step - loss: 0.6451 - accuracy: 0.6954
Epoch 31/50
39/39 [=====] - 0s 2ms/step - loss: 0.6490 - accuracy: 0.6922
Epoch 32/50
39/39 [=====] - 0s 3ms/step - loss: 0.6477 - accuracy: 0.7003
Epoch 33/50
39/39 [=====] - 0s 4ms/step - loss: 0.6460 - accuracy: 0.6824
Epoch 34/50
39/39 [=====] - 0s 2ms/step - loss: 0.6386 - accuracy: 0.7020
Epoch 35/50
39/39 [=====] - 0s 2ms/step - loss: 0.6382 - accuracy: 0.7036
Epoch 36/50
39/39 [=====] - 0s 2ms/step - loss: 0.6352 - accuracy: 0.6792
Epoch 37/50
```

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39/39 [=====] - 0s 3ms/step - loss: 0.6421 - accuracy: 0.6857
Epoch 38/50
39/39 [=====] - 0s 2ms/step - loss: 0.6308 - accuracy: 0.7036
Epoch 39/50
39/39 [=====] - 0s 2ms/step - loss: 0.6321 - accuracy: 0.6971
Epoch 40/50
39/39 [=====] - 0s 2ms/step - loss: 0.6245 - accuracy: 0.7068
Epoch 41/50
39/39 [=====] - 0s 2ms/step - loss: 0.6233 - accuracy: 0.6889
Epoch 42/50
39/39 [=====] - 0s 2ms/step - loss: 0.6267 - accuracy: 0.6922
Epoch 43/50
39/39 [=====] - 0s 2ms/step - loss: 0.6282 - accuracy: 0.6938
Epoch 44/50
39/39 [=====] - 0s 2ms/step - loss: 0.6262 - accuracy: 0.7003
Epoch 45/50
39/39 [=====] - 0s 2ms/step - loss: 0.6245 - accuracy: 0.6987
Epoch 46/50
39/39 [=====] - 0s 3ms/step - loss: 0.6263 - accuracy: 0.7003
Epoch 47/50
39/39 [=====] - 0s 3ms/step - loss: 0.6239 - accuracy: 0.7003
Epoch 48/50
39/39 [=====] - 0s 2ms/step - loss: 0.6222 - accuracy: 0.6889
Epoch 49/50
39/39 [=====] - 0s 2ms/step - loss: 0.6225 - accuracy: 0.7003
Epoch 50/50
39/39 [=====] - 0s 2ms/step - loss: 0.6200 - accuracy: 0.6889
10/10 [=====] - 0s 1ms/step - loss: 0.6211 - accuracy: 0.7143
Epoch 1/50
39/39 [=====] - 1s 1ms/step - loss: 5.1793 - accuracy: 0.5870
Epoch 2/50
39/39 [=====] - 0s 2ms/step - loss: 1.8993 - accuracy: 0.6195
Epoch 3/50
39/39 [=====] - 0s 2ms/step - loss: 1.7145 - accuracy: 0.6341
Epoch 4/50
39/39 [=====] - 0s 2ms/step - loss: 1.5585 - accuracy: 0.6374
Epoch 5/50
39/39 [=====] - 0s 2ms/step - loss: 1.4273 - accuracy: 0.6309
Epoch 6/50
39/39 [=====] - 0s 2ms/step - loss: 1.3142 - accuracy: 0.6325
Epoch 7/50
39/39 [=====] - 0s 2ms/step - loss: 1.2180 - accuracy: 0.6374
Epoch 8/50
39/39 [=====] - 0s 2ms/step - loss: 1.1365 - accuracy: 0.6244
Epoch 9/50
39/39 [=====] - 0s 2ms/step - loss: 1.0630 - accuracy: 0.6374
Epoch 10/50
39/39 [=====] - 0s 2ms/step - loss: 1.0010 - accuracy: 0.6520
Epoch 11/50
39/39 [=====] - 0s 2ms/step - loss: 0.9450 - accuracy: 0.6553
Epoch 12/50
39/39 [=====] - 0s 3ms/step - loss: 0.9041 - accuracy: 0.6439
Epoch 13/50
39/39 [=====] - 0s 1ms/step - loss: 0.8640 - accuracy: 0.6618
Epoch 14/50
39/39 [=====] - 0s 2ms/step - loss: 0.8294 - accuracy: 0.6650
Epoch 15/50
39/39 [=====] - 0s 2ms/step - loss: 0.8042 - accuracy: 0.6715
Epoch 16/50
39/39 [=====] - 0s 2ms/step - loss: 0.7819 - accuracy: 0.6846
Epoch 17/50
39/39 [=====] - 0s 2ms/step - loss: 0.7577 - accuracy: 0.6732
Epoch 18/50
39/39 [=====] - 0s 3ms/step - loss: 0.7497 - accuracy: 0.6504
Epoch 19/50
39/39 [=====] - 0s 2ms/step - loss: 0.7274 - accuracy: 0.6667
Epoch 20/50
39/39 [=====] - 0s 2ms/step - loss: 0.7176 - accuracy: 0.6780
Epoch 21/50
39/39 [=====] - 0s 3ms/step - loss: 0.7040 - accuracy: 0.6602
Epoch 22/50
39/39 [=====] - 0s 2ms/step - loss: 0.6916 - accuracy: 0.6650
Epoch 23/50
39/39 [=====] - 0s 2ms/step - loss: 0.6796 - accuracy: 0.6878
Epoch 24/50
39/39 [=====] - 0s 3ms/step - loss: 0.6732 - accuracy: 0.6683
Epoch 25/50
39/39 [=====] - 0s 2ms/step - loss: 0.6729 - accuracy: 0.6715
Epoch 26/50
39/39 [=====] - 0s 3ms/step - loss: 0.6657 - accuracy: 0.6797
Epoch 27/50
39/39 [=====] - 0s 2ms/step - loss: 0.6626 - accuracy: 0.6732
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Epoch 28/50
39/39 [=====] - 0s 3ms/step - loss: 0.6595 - accuracy: 0.6813
Epoch 29/50
39/39 [=====] - 0s 2ms/step - loss: 0.6487 - accuracy: 0.6602
Epoch 30/50
39/39 [=====] - 0s 2ms/step - loss: 0.6472 - accuracy: 0.6748
Epoch 31/50
39/39 [=====] - 0s 2ms/step - loss: 0.6393 - accuracy: 0.6894
Epoch 32/50
39/39 [=====] - 0s 2ms/step - loss: 0.6496 - accuracy: 0.6667
Epoch 33/50
39/39 [=====] - 0s 2ms/step - loss: 0.6397 - accuracy: 0.6715
Epoch 34/50
39/39 [=====] - 0s 2ms/step - loss: 0.6461 - accuracy: 0.6585
Epoch 35/50
39/39 [=====] - 0s 3ms/step - loss: 0.6318 - accuracy: 0.6764
Epoch 36/50
39/39 [=====] - 0s 2ms/step - loss: 0.6377 - accuracy: 0.6748
Epoch 37/50
39/39 [=====] - 0s 2ms/step - loss: 0.6334 - accuracy: 0.6797
Epoch 38/50
39/39 [=====] - 0s 2ms/step - loss: 0.6234 - accuracy: 0.7089
Epoch 39/50
39/39 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6732
Epoch 40/50
39/39 [=====] - 0s 2ms/step - loss: 0.6287 - accuracy: 0.6829
Epoch 41/50
39/39 [=====] - 0s 2ms/step - loss: 0.6381 - accuracy: 0.6829
Epoch 42/50
39/39 [=====] - 0s 3ms/step - loss: 0.6205 - accuracy: 0.6862
Epoch 43/50
39/39 [=====] - 0s 2ms/step - loss: 0.6314 - accuracy: 0.6715
Epoch 44/50
39/39 [=====] - 0s 2ms/step - loss: 0.6322 - accuracy: 0.6813
Epoch 45/50
39/39 [=====] - 0s 3ms/step - loss: 0.6342 - accuracy: 0.6829
Epoch 46/50
39/39 [=====] - 0s 2ms/step - loss: 0.6293 - accuracy: 0.6959
Epoch 47/50
39/39 [=====] - 0s 2ms/step - loss: 0.6240 - accuracy: 0.6764
Epoch 48/50
39/39 [=====] - 0s 2ms/step - loss: 0.6158 - accuracy: 0.6911
Epoch 49/50
39/39 [=====] - 0s 2ms/step - loss: 0.6224 - accuracy: 0.6683
Epoch 50/50
39/39 [=====] - 0s 2ms/step - loss: 0.6314 - accuracy: 0.6862
10/10 [=====] - 0s 1ms/step - loss: 0.5951 - accuracy: 0.7582
Epoch 1/50
39/39 [=====] - 0s 1ms/step - loss: 3.5827 - accuracy: 0.5902
Epoch 2/50
39/39 [=====] - 0s 2ms/step - loss: 1.6385 - accuracy: 0.6358
Epoch 3/50
39/39 [=====] - 0s 3ms/step - loss: 1.4945 - accuracy: 0.6390
Epoch 4/50
39/39 [=====] - 0s 2ms/step - loss: 1.3662 - accuracy: 0.6504
Epoch 5/50
39/39 [=====] - 0s 2ms/step - loss: 1.2635 - accuracy: 0.6537
Epoch 6/50
39/39 [=====] - 0s 4ms/step - loss: 1.1674 - accuracy: 0.6602
Epoch 7/50
39/39 [=====] - 0s 3ms/step - loss: 1.0807 - accuracy: 0.6683
Epoch 8/50
39/39 [=====] - 0s 2ms/step - loss: 1.0114 - accuracy: 0.6732
Epoch 9/50
39/39 [=====] - 0s 2ms/step - loss: 0.9543 - accuracy: 0.6683
Epoch 10/50
39/39 [=====] - 0s 2ms/step - loss: 0.9056 - accuracy: 0.6699
Epoch 11/50
39/39 [=====] - 0s 2ms/step - loss: 0.8733 - accuracy: 0.6618
Epoch 12/50
39/39 [=====] - 0s 2ms/step - loss: 0.8300 - accuracy: 0.6634
Epoch 13/50
39/39 [=====] - 0s 2ms/step - loss: 0.8034 - accuracy: 0.6683
Epoch 14/50
39/39 [=====] - 0s 2ms/step - loss: 0.7777 - accuracy: 0.6780
Epoch 15/50
39/39 [=====] - 0s 2ms/step - loss: 0.7555 - accuracy: 0.6862
Epoch 16/50
39/39 [=====] - 0s 2ms/step - loss: 0.7428 - accuracy: 0.6715
Epoch 17/50
39/39 [=====] - 0s 2ms/step - loss: 0.7317 - accuracy: 0.6650
Epoch 18/50

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39/39 [=====] - 0s 3ms/step - loss: 0.7145 - accuracy: 0.6732
Epoch 19/50
39/39 [=====] - 0s 2ms/step - loss: 0.6947 - accuracy: 0.6813
Epoch 20/50
39/39 [=====] - 0s 2ms/step - loss: 0.6887 - accuracy: 0.6504
Epoch 21/50
39/39 [=====] - 0s 2ms/step - loss: 0.6793 - accuracy: 0.6797
Epoch 22/50
39/39 [=====] - 0s 2ms/step - loss: 0.6778 - accuracy: 0.6683
Epoch 23/50
39/39 [=====] - 0s 2ms/step - loss: 0.6695 - accuracy: 0.6780
Epoch 24/50
39/39 [=====] - 0s 2ms/step - loss: 0.6598 - accuracy: 0.6732
Epoch 25/50
39/39 [=====] - 0s 2ms/step - loss: 0.6657 - accuracy: 0.6667
Epoch 26/50
39/39 [=====] - 0s 2ms/step - loss: 0.6502 - accuracy: 0.6846
Epoch 27/50
39/39 [=====] - 0s 2ms/step - loss: 0.6553 - accuracy: 0.6732
Epoch 28/50
39/39 [=====] - 0s 2ms/step - loss: 0.6441 - accuracy: 0.6878
Epoch 29/50
39/39 [=====] - 0s 2ms/step - loss: 0.6401 - accuracy: 0.6602
Epoch 30/50
39/39 [=====] - 0s 2ms/step - loss: 0.6413 - accuracy: 0.6959
Epoch 31/50
39/39 [=====] - 0s 2ms/step - loss: 0.6425 - accuracy: 0.6813
Epoch 32/50
39/39 [=====] - 0s 1ms/step - loss: 0.6370 - accuracy: 0.6780
Epoch 33/50
39/39 [=====] - 0s 1ms/step - loss: 0.6320 - accuracy: 0.6911
Epoch 34/50
39/39 [=====] - 0s 2ms/step - loss: 0.6308 - accuracy: 0.7024
Epoch 35/50
39/39 [=====] - 0s 2ms/step - loss: 0.6260 - accuracy: 0.7073
Epoch 36/50
39/39 [=====] - 0s 3ms/step - loss: 0.6314 - accuracy: 0.6797
Epoch 37/50
39/39 [=====] - 0s 3ms/step - loss: 0.6231 - accuracy: 0.6959
Epoch 38/50
39/39 [=====] - 0s 2ms/step - loss: 0.6327 - accuracy: 0.6927
Epoch 39/50
39/39 [=====] - 0s 2ms/step - loss: 0.6318 - accuracy: 0.7008
Epoch 40/50
39/39 [=====] - 0s 2ms/step - loss: 0.6227 - accuracy: 0.7008
Epoch 41/50
39/39 [=====] - 0s 2ms/step - loss: 0.6245 - accuracy: 0.6911
Epoch 42/50
39/39 [=====] - 0s 2ms/step - loss: 0.6273 - accuracy: 0.6976
Epoch 43/50
39/39 [=====] - 0s 2ms/step - loss: 0.6326 - accuracy: 0.6878
Epoch 44/50
39/39 [=====] - 0s 2ms/step - loss: 0.6220 - accuracy: 0.7073
Epoch 45/50
39/39 [=====] - 0s 2ms/step - loss: 0.6251 - accuracy: 0.6911
Epoch 46/50
39/39 [=====] - 0s 2ms/step - loss: 0.6208 - accuracy: 0.7089
Epoch 47/50
39/39 [=====] - 0s 2ms/step - loss: 0.6200 - accuracy: 0.7024
Epoch 48/50
39/39 [=====] - 0s 2ms/step - loss: 0.6121 - accuracy: 0.7106
Epoch 49/50
39/39 [=====] - 0s 3ms/step - loss: 0.6258 - accuracy: 0.6780
Epoch 50/50
39/39 [=====] - 0s 2ms/step - loss: 0.6145 - accuracy: 0.6976
10/10 [=====] - 0s 1ms/step - loss: 0.6660 - accuracy: 0.6667
Epoch 1/50
39/39 [=====] - 1s 1ms/step - loss: 6.1957 - accuracy: 0.6352
Epoch 2/50
39/39 [=====] - 0s 1ms/step - loss: 3.1067 - accuracy: 0.6515
Epoch 3/50
39/39 [=====] - 0s 2ms/step - loss: 1.7788 - accuracy: 0.6515
Epoch 4/50
39/39 [=====] - 0s 2ms/step - loss: 1.1764 - accuracy: 0.6515
Epoch 5/50
39/39 [=====] - 0s 3ms/step - loss: 0.8994 - accuracy: 0.6515
Epoch 6/50
39/39 [=====] - 0s 2ms/step - loss: 0.7729 - accuracy: 0.6515
Epoch 7/50
39/39 [=====] - 0s 4ms/step - loss: 0.7140 - accuracy: 0.6515
Epoch 8/50
39/39 [=====] - 0s 3ms/step - loss: 0.6856 - accuracy: 0.6515
```

Epoch 9/50
39/39 [=====] - 0s 2ms/step - loss: 0.6722 - accuracy: 0.6515
Epoch 10/50
39/39 [=====] - 0s 2ms/step - loss: 0.6648 - accuracy: 0.6515
Epoch 11/50
39/39 [=====] - 0s 2ms/step - loss: 0.6609 - accuracy: 0.6515
Epoch 12/50
39/39 [=====] - 0s 3ms/step - loss: 0.6577 - accuracy: 0.6515
Epoch 13/50
39/39 [=====] - 0s 2ms/step - loss: 0.6557 - accuracy: 0.6515
Epoch 14/50
39/39 [=====] - 0s 3ms/step - loss: 0.6539 - accuracy: 0.6515
Epoch 15/50
39/39 [=====] - 0s 3ms/step - loss: 0.6527 - accuracy: 0.6515
Epoch 16/50
39/39 [=====] - 0s 2ms/step - loss: 0.6516 - accuracy: 0.6515
Epoch 17/50
39/39 [=====] - 0s 2ms/step - loss: 0.6503 - accuracy: 0.6515
Epoch 18/50
39/39 [=====] - 0s 2ms/step - loss: 0.6492 - accuracy: 0.6515
Epoch 19/50
39/39 [=====] - 0s 2ms/step - loss: 0.6491 - accuracy: 0.6515
Epoch 20/50
39/39 [=====] - 0s 2ms/step - loss: 0.6482 - accuracy: 0.6515
Epoch 21/50
39/39 [=====] - 0s 2ms/step - loss: 0.6479 - accuracy: 0.6515
Epoch 22/50
39/39 [=====] - 0s 2ms/step - loss: 0.6471 - accuracy: 0.6515
Epoch 23/50
39/39 [=====] - 0s 3ms/step - loss: 0.6466 - accuracy: 0.6515
Epoch 24/50
39/39 [=====] - 0s 2ms/step - loss: 0.6468 - accuracy: 0.6515
Epoch 25/50
39/39 [=====] - 0s 3ms/step - loss: 0.6462 - accuracy: 0.6515
Epoch 26/50
39/39 [=====] - 0s 2ms/step - loss: 0.6464 - accuracy: 0.6515
Epoch 27/50
39/39 [=====] - 0s 2ms/step - loss: 0.6459 - accuracy: 0.6515
Epoch 28/50
39/39 [=====] - 0s 2ms/step - loss: 0.6448 - accuracy: 0.6515
Epoch 29/50
39/39 [=====] - 0s 2ms/step - loss: 0.6455 - accuracy: 0.6515
Epoch 30/50
39/39 [=====] - 0s 2ms/step - loss: 0.6450 - accuracy: 0.6515
Epoch 31/50
39/39 [=====] - 0s 3ms/step - loss: 0.6447 - accuracy: 0.6515
Epoch 32/50
39/39 [=====] - 0s 2ms/step - loss: 0.6444 - accuracy: 0.6515
Epoch 33/50
39/39 [=====] - 0s 4ms/step - loss: 0.6445 - accuracy: 0.6515
Epoch 34/50
39/39 [=====] - 0s 3ms/step - loss: 0.6443 - accuracy: 0.6515
Epoch 35/50
39/39 [=====] - 0s 2ms/step - loss: 0.6444 - accuracy: 0.6515
Epoch 36/50
39/39 [=====] - 0s 2ms/step - loss: 0.6433 - accuracy: 0.6515
Epoch 37/50
39/39 [=====] - 0s 3ms/step - loss: 0.6434 - accuracy: 0.6515
Epoch 38/50
39/39 [=====] - 0s 2ms/step - loss: 0.6430 - accuracy: 0.6515
Epoch 39/50
39/39 [=====] - 0s 2ms/step - loss: 0.6435 - accuracy: 0.6515
Epoch 40/50
39/39 [=====] - 0s 2ms/step - loss: 0.6424 - accuracy: 0.6515
Epoch 41/50
39/39 [=====] - 0s 2ms/step - loss: 0.6433 - accuracy: 0.6515
Epoch 42/50
39/39 [=====] - 0s 2ms/step - loss: 0.6431 - accuracy: 0.6515
Epoch 43/50
39/39 [=====] - 0s 2ms/step - loss: 0.6426 - accuracy: 0.6515
Epoch 44/50
39/39 [=====] - 0s 2ms/step - loss: 0.6423 - accuracy: 0.6515
Epoch 45/50
39/39 [=====] - 0s 2ms/step - loss: 0.6426 - accuracy: 0.6515
Epoch 46/50
39/39 [=====] - 0s 2ms/step - loss: 0.6428 - accuracy: 0.6515
Epoch 47/50
39/39 [=====] - 0s 2ms/step - loss: 0.6430 - accuracy: 0.6515
Epoch 48/50
39/39 [=====] - 0s 2ms/step - loss: 0.6419 - accuracy: 0.6515
Epoch 49/50
39/39 [=====] - 0s 2ms/step - loss: 0.6416 - accuracy: 0.6515

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Epoch 50/50
39/39 [=====] - 0s 2ms/step - loss: 0.6415 - accuracy: 0.6515
10/10 [=====] - 0s 1ms/step - loss: 0.6463 - accuracy: 0.6494
Epoch 1/50
39/39 [=====] - 0s 2ms/step - loss: 6.5839 - accuracy: 0.6352
Epoch 2/50
39/39 [=====] - 0s 2ms/step - loss: 2.9400 - accuracy: 0.6678
Epoch 3/50
39/39 [=====] - 0s 3ms/step - loss: 1.7052 - accuracy: 0.6678
Epoch 4/50
39/39 [=====] - 0s 2ms/step - loss: 1.1374 - accuracy: 0.6678
Epoch 5/50
39/39 [=====] - 0s 3ms/step - loss: 0.8825 - accuracy: 0.6678
Epoch 6/50
39/39 [=====] - 0s 2ms/step - loss: 0.7631 - accuracy: 0.6678
Epoch 7/50
39/39 [=====] - 0s 2ms/step - loss: 0.7088 - accuracy: 0.6678
Epoch 8/50
39/39 [=====] - 0s 2ms/step - loss: 0.6832 - accuracy: 0.6678
Epoch 9/50
39/39 [=====] - 0s 2ms/step - loss: 0.6696 - accuracy: 0.6678
Epoch 10/50
39/39 [=====] - 0s 2ms/step - loss: 0.6619 - accuracy: 0.6678
Epoch 11/50
39/39 [=====] - 0s 3ms/step - loss: 0.6575 - accuracy: 0.6678
Epoch 12/50
39/39 [=====] - 0s 3ms/step - loss: 0.6549 - accuracy: 0.6678
Epoch 13/50
39/39 [=====] - 0s 3ms/step - loss: 0.6527 - accuracy: 0.6678
Epoch 14/50
39/39 [=====] - 0s 2ms/step - loss: 0.6504 - accuracy: 0.6678
Epoch 15/50
39/39 [=====] - 0s 2ms/step - loss: 0.6477 - accuracy: 0.6678
Epoch 16/50
39/39 [=====] - 0s 2ms/step - loss: 0.6465 - accuracy: 0.6678
Epoch 17/50
39/39 [=====] - 0s 2ms/step - loss: 0.6453 - accuracy: 0.6710
Epoch 18/50
39/39 [=====] - 0s 2ms/step - loss: 0.6436 - accuracy: 0.6694
Epoch 19/50
39/39 [=====] - 0s 2ms/step - loss: 0.6422 - accuracy: 0.6678
Epoch 20/50
39/39 [=====] - 0s 2ms/step - loss: 0.6409 - accuracy: 0.6694
Epoch 21/50
39/39 [=====] - 0s 2ms/step - loss: 0.6378 - accuracy: 0.6678
Epoch 22/50
39/39 [=====] - 0s 2ms/step - loss: 0.6369 - accuracy: 0.6743
Epoch 23/50
39/39 [=====] - 0s 2ms/step - loss: 0.6378 - accuracy: 0.6694
Epoch 24/50
39/39 [=====] - 0s 2ms/step - loss: 0.6334 - accuracy: 0.6775
Epoch 25/50
39/39 [=====] - 0s 2ms/step - loss: 0.6310 - accuracy: 0.6775
Epoch 26/50
39/39 [=====] - 0s 2ms/step - loss: 0.6312 - accuracy: 0.6792
Epoch 27/50
39/39 [=====] - 0s 2ms/step - loss: 0.6309 - accuracy: 0.6808
Epoch 28/50
39/39 [=====] - 0s 2ms/step - loss: 0.6270 - accuracy: 0.6824
Epoch 29/50
39/39 [=====] - 0s 2ms/step - loss: 0.6276 - accuracy: 0.6906
Epoch 30/50
39/39 [=====] - 0s 2ms/step - loss: 0.6283 - accuracy: 0.6775
Epoch 31/50
39/39 [=====] - 0s 2ms/step - loss: 0.6283 - accuracy: 0.6840
Epoch 32/50
39/39 [=====] - 0s 3ms/step - loss: 0.6269 - accuracy: 0.6857
Epoch 33/50
39/39 [=====] - 0s 3ms/step - loss: 0.6269 - accuracy: 0.6678
Epoch 34/50
39/39 [=====] - 0s 2ms/step - loss: 0.6276 - accuracy: 0.6661
Epoch 35/50
39/39 [=====] - 0s 2ms/step - loss: 0.6231 - accuracy: 0.6824
Epoch 36/50
39/39 [=====] - 0s 2ms/step - loss: 0.6240 - accuracy: 0.6678
Epoch 37/50
39/39 [=====] - 0s 2ms/step - loss: 0.6236 - accuracy: 0.6840
Epoch 38/50
39/39 [=====] - 0s 3ms/step - loss: 0.6280 - accuracy: 0.6808
Epoch 39/50
39/39 [=====] - 0s 2ms/step - loss: 0.6201 - accuracy: 0.6808
Epoch 40/50
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39/39 [=====] - 0s 3ms/step - loss: 0.6168 - accuracy: 0.6873
Epoch 41/50
39/39 [=====] - 0s 2ms/step - loss: 0.6246 - accuracy: 0.6824
Epoch 42/50
39/39 [=====] - 0s 2ms/step - loss: 0.6149 - accuracy: 0.7036
Epoch 43/50
39/39 [=====] - 0s 2ms/step - loss: 0.6287 - accuracy: 0.6759
Epoch 44/50
39/39 [=====] - 0s 2ms/step - loss: 0.6215 - accuracy: 0.6954
Epoch 45/50
39/39 [=====] - 0s 2ms/step - loss: 0.6063 - accuracy: 0.7052
Epoch 46/50
39/39 [=====] - 0s 2ms/step - loss: 0.6144 - accuracy: 0.6840
Epoch 47/50
39/39 [=====] - 0s 2ms/step - loss: 0.6177 - accuracy: 0.6889
Epoch 48/50
39/39 [=====] - 0s 2ms/step - loss: 0.6102 - accuracy: 0.7020
Epoch 49/50
39/39 [=====] - 0s 2ms/step - loss: 0.6142 - accuracy: 0.7020
Epoch 50/50
39/39 [=====] - 0s 2ms/step - loss: 0.6112 - accuracy: 0.6971
10/10 [=====] - 0s 1ms/step - loss: 0.6866 - accuracy: 0.5844
Epoch 1/50
39/39 [=====] - 0s 1ms/step - loss: 8.3010 - accuracy: 0.6221
Epoch 2/50
39/39 [=====] - 0s 2ms/step - loss: 3.6020 - accuracy: 0.6498
Epoch 3/50
39/39 [=====] - 0s 2ms/step - loss: 1.9839 - accuracy: 0.6564
Epoch 4/50
39/39 [=====] - 0s 2ms/step - loss: 1.2562 - accuracy: 0.6547
Epoch 5/50
39/39 [=====] - 0s 2ms/step - loss: 0.9258 - accuracy: 0.6547
Epoch 6/50
39/39 [=====] - 0s 2ms/step - loss: 0.7860 - accuracy: 0.6564
Epoch 7/50
39/39 [=====] - 0s 2ms/step - loss: 0.7154 - accuracy: 0.6564
Epoch 8/50
39/39 [=====] - 0s 2ms/step - loss: 0.6820 - accuracy: 0.6564
Epoch 9/50
39/39 [=====] - 0s 2ms/step - loss: 0.6700 - accuracy: 0.6564
Epoch 10/50
39/39 [=====] - 0s 2ms/step - loss: 0.6596 - accuracy: 0.6564
Epoch 11/50
39/39 [=====] - 0s 3ms/step - loss: 0.6596 - accuracy: 0.6564
Epoch 12/50
39/39 [=====] - 0s 2ms/step - loss: 0.6559 - accuracy: 0.6564
Epoch 13/50
39/39 [=====] - 0s 2ms/step - loss: 0.6510 - accuracy: 0.6564
Epoch 14/50
39/39 [=====] - 0s 3ms/step - loss: 0.6505 - accuracy: 0.6564
Epoch 15/50
39/39 [=====] - 0s 2ms/step - loss: 0.6527 - accuracy: 0.6564
Epoch 16/50
39/39 [=====] - 0s 2ms/step - loss: 0.6486 - accuracy: 0.6564
Epoch 17/50
39/39 [=====] - 0s 2ms/step - loss: 0.6477 - accuracy: 0.6564
Epoch 18/50
39/39 [=====] - 0s 2ms/step - loss: 0.6464 - accuracy: 0.6564
Epoch 19/50
39/39 [=====] - 0s 2ms/step - loss: 0.6487 - accuracy: 0.6564
Epoch 20/50
39/39 [=====] - 0s 3ms/step - loss: 0.6452 - accuracy: 0.6564
Epoch 21/50
39/39 [=====] - 0s 2ms/step - loss: 0.6446 - accuracy: 0.6564
Epoch 22/50
39/39 [=====] - 0s 2ms/step - loss: 0.6456 - accuracy: 0.6564
Epoch 23/50
39/39 [=====] - 0s 2ms/step - loss: 0.6446 - accuracy: 0.6564
Epoch 24/50
39/39 [=====] - 0s 3ms/step - loss: 0.6469 - accuracy: 0.6564
Epoch 25/50
39/39 [=====] - 0s 2ms/step - loss: 0.6438 - accuracy: 0.6564
Epoch 26/50
39/39 [=====] - 0s 3ms/step - loss: 0.6420 - accuracy: 0.6564
Epoch 27/50
39/39 [=====] - 0s 2ms/step - loss: 0.6396 - accuracy: 0.6564
Epoch 28/50
39/39 [=====] - 0s 2ms/step - loss: 0.6390 - accuracy: 0.6564
Epoch 29/50
39/39 [=====] - 0s 2ms/step - loss: 0.6413 - accuracy: 0.6564
Epoch 30/50
39/39 [=====] - 0s 2ms/step - loss: 0.6385 - accuracy: 0.6564
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Epoch 31/50
39/39 [=====] - 0s 3ms/step - loss: 0.6408 - accuracy: 0.6580
Epoch 32/50
39/39 [=====] - 0s 2ms/step - loss: 0.6394 - accuracy: 0.6580
Epoch 33/50
39/39 [=====] - 0s 2ms/step - loss: 0.6434 - accuracy: 0.6564
Epoch 34/50
39/39 [=====] - 0s 2ms/step - loss: 0.6361 - accuracy: 0.6531
Epoch 35/50
39/39 [=====] - 0s 2ms/step - loss: 0.6396 - accuracy: 0.6547
Epoch 36/50
39/39 [=====] - 0s 2ms/step - loss: 0.6343 - accuracy: 0.6547
Epoch 37/50
39/39 [=====] - 0s 2ms/step - loss: 0.6323 - accuracy: 0.6531
Epoch 38/50
39/39 [=====] - 0s 1ms/step - loss: 0.6328 - accuracy: 0.6612
Epoch 39/50
39/39 [=====] - 0s 2ms/step - loss: 0.6333 - accuracy: 0.6612
Epoch 40/50
39/39 [=====] - 0s 2ms/step - loss: 0.6360 - accuracy: 0.6580
Epoch 41/50
39/39 [=====] - 0s 2ms/step - loss: 0.6332 - accuracy: 0.6629
Epoch 42/50
39/39 [=====] - 0s 2ms/step - loss: 0.6313 - accuracy: 0.6564
Epoch 43/50
39/39 [=====] - 0s 4ms/step - loss: 0.6320 - accuracy: 0.6580
Epoch 44/50
39/39 [=====] - 0s 3ms/step - loss: 0.6312 - accuracy: 0.6645
Epoch 45/50
39/39 [=====] - 0s 2ms/step - loss: 0.6349 - accuracy: 0.6645
Epoch 46/50
39/39 [=====] - 0s 2ms/step - loss: 0.6287 - accuracy: 0.6596
Epoch 47/50
39/39 [=====] - 0s 2ms/step - loss: 0.6272 - accuracy: 0.6629
Epoch 48/50
39/39 [=====] - 0s 2ms/step - loss: 0.6290 - accuracy: 0.6629
Epoch 49/50
39/39 [=====] - 0s 2ms/step - loss: 0.6257 - accuracy: 0.6678
Epoch 50/50
39/39 [=====] - 0s 2ms/step - loss: 0.6271 - accuracy: 0.6629
10/10 [=====] - 0s 1ms/step - loss: 0.6594 - accuracy: 0.6299
Epoch 1/50
39/39 [=====] - 0s 1ms/step - loss: 5.8313 - accuracy: 0.6016
Epoch 2/50
39/39 [=====] - 0s 3ms/step - loss: 2.9126 - accuracy: 0.6276
Epoch 3/50
39/39 [=====] - 0s 4ms/step - loss: 1.6984 - accuracy: 0.6276
Epoch 4/50
39/39 [=====] - 0s 3ms/step - loss: 1.1500 - accuracy: 0.6276
Epoch 5/50
39/39 [=====] - 0s 4ms/step - loss: 0.8890 - accuracy: 0.6276
Epoch 6/50
39/39 [=====] - 0s 3ms/step - loss: 0.7671 - accuracy: 0.6276
Epoch 7/50
39/39 [=====] - 0s 3ms/step - loss: 0.7181 - accuracy: 0.6276
Epoch 8/50
39/39 [=====] - 0s 4ms/step - loss: 0.6930 - accuracy: 0.6276
Epoch 9/50
39/39 [=====] - 0s 3ms/step - loss: 0.6799 - accuracy: 0.6276
Epoch 10/50
39/39 [=====] - 0s 3ms/step - loss: 0.6744 - accuracy: 0.6276
Epoch 11/50
39/39 [=====] - 0s 3ms/step - loss: 0.6718 - accuracy: 0.6276
Epoch 12/50
39/39 [=====] - 0s 3ms/step - loss: 0.6697 - accuracy: 0.6276
Epoch 13/50
39/39 [=====] - 0s 3ms/step - loss: 0.6674 - accuracy: 0.6276
Epoch 14/50
39/39 [=====] - 0s 2ms/step - loss: 0.6669 - accuracy: 0.6276
Epoch 15/50
39/39 [=====] - 0s 2ms/step - loss: 0.6649 - accuracy: 0.6276
Epoch 16/50
39/39 [=====] - 0s 2ms/step - loss: 0.6640 - accuracy: 0.6276
Epoch 17/50
39/39 [=====] - 0s 2ms/step - loss: 0.6633 - accuracy: 0.6276
Epoch 18/50
39/39 [=====] - 0s 2ms/step - loss: 0.6630 - accuracy: 0.6276
Epoch 19/50
39/39 [=====] - 0s 2ms/step - loss: 0.6620 - accuracy: 0.6276
Epoch 20/50
39/39 [=====] - 0s 2ms/step - loss: 0.6614 - accuracy: 0.6276
Epoch 21/50
```



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39/39 [=====] - 0s 2ms/step - loss: 0.6617 - accuracy: 0.6276
Epoch 22/50
39/39 [=====] - 0s 2ms/step - loss: 0.6612 - accuracy: 0.6276
Epoch 23/50
39/39 [=====] - 0s 3ms/step - loss: 0.6599 - accuracy: 0.6276
Epoch 24/50
39/39 [=====] - 0s 2ms/step - loss: 0.6610 - accuracy: 0.6276
Epoch 25/50
39/39 [=====] - 0s 2ms/step - loss: 0.6599 - accuracy: 0.6276
Epoch 26/50
39/39 [=====] - 0s 2ms/step - loss: 0.6597 - accuracy: 0.6276
Epoch 27/50
39/39 [=====] - 0s 2ms/step - loss: 0.6589 - accuracy: 0.6276
Epoch 28/50
39/39 [=====] - 0s 3ms/step - loss: 0.6590 - accuracy: 0.6276
Epoch 29/50
39/39 [=====] - 0s 3ms/step - loss: 0.6595 - accuracy: 0.6276
Epoch 30/50
39/39 [=====] - 0s 4ms/step - loss: 0.6582 - accuracy: 0.6276
Epoch 31/50
39/39 [=====] - 0s 2ms/step - loss: 0.6587 - accuracy: 0.6276
Epoch 32/50
39/39 [=====] - 0s 5ms/step - loss: 0.6583 - accuracy: 0.6276
Epoch 33/50
39/39 [=====] - 0s 3ms/step - loss: 0.6573 - accuracy: 0.6276
Epoch 34/50
39/39 [=====] - 0s 2ms/step - loss: 0.6571 - accuracy: 0.6276
Epoch 35/50
39/39 [=====] - 0s 4ms/step - loss: 0.6587 - accuracy: 0.6276
Epoch 36/50
39/39 [=====] - 0s 2ms/step - loss: 0.6584 - accuracy: 0.6276
Epoch 37/50
39/39 [=====] - 0s 4ms/step - loss: 0.6575 - accuracy: 0.6276
Epoch 38/50
39/39 [=====] - 0s 3ms/step - loss: 0.6572 - accuracy: 0.6276
Epoch 39/50
39/39 [=====] - 0s 4ms/step - loss: 0.6569 - accuracy: 0.6276
Epoch 40/50
39/39 [=====] - 0s 4ms/step - loss: 0.6566 - accuracy: 0.6276
Epoch 41/50
39/39 [=====] - 0s 3ms/step - loss: 0.6570 - accuracy: 0.6276
Epoch 42/50
39/39 [=====] - 0s 2ms/step - loss: 0.6564 - accuracy: 0.6276
Epoch 43/50
39/39 [=====] - 0s 3ms/step - loss: 0.6570 - accuracy: 0.6276
Epoch 44/50
39/39 [=====] - 0s 2ms/step - loss: 0.6557 - accuracy: 0.6276
Epoch 45/50
39/39 [=====] - 0s 3ms/step - loss: 0.6551 - accuracy: 0.6276
Epoch 46/50
39/39 [=====] - 0s 2ms/step - loss: 0.6556 - accuracy: 0.6276
Epoch 47/50
39/39 [=====] - 0s 2ms/step - loss: 0.6561 - accuracy: 0.6276
Epoch 48/50
39/39 [=====] - 0s 3ms/step - loss: 0.6569 - accuracy: 0.6276
Epoch 49/50
39/39 [=====] - 0s 3ms/step - loss: 0.6558 - accuracy: 0.6276
Epoch 50/50
39/39 [=====] - 0s 2ms/step - loss: 0.6558 - accuracy: 0.6276
10/10 [=====] - 0s 1ms/step - loss: 0.5861 - accuracy: 0.7451
Epoch 1/50
39/39 [=====] - 0s 1ms/step - loss: 8.4630 - accuracy: 0.6065
Epoch 2/50
39/39 [=====] - 0s 2ms/step - loss: 3.3854 - accuracy: 0.6407
Epoch 3/50
39/39 [=====] - 0s 2ms/step - loss: 1.9058 - accuracy: 0.6520
Epoch 4/50
39/39 [=====] - 0s 2ms/step - loss: 1.2354 - accuracy: 0.6520
Epoch 5/50
39/39 [=====] - 0s 2ms/step - loss: 0.9283 - accuracy: 0.6520
Epoch 6/50
39/39 [=====] - 0s 3ms/step - loss: 0.7873 - accuracy: 0.6520
Epoch 7/50
39/39 [=====] - 0s 2ms/step - loss: 0.7217 - accuracy: 0.6520
Epoch 8/50
39/39 [=====] - 0s 2ms/step - loss: 0.6902 - accuracy: 0.6520
Epoch 9/50
39/39 [=====] - 0s 2ms/step - loss: 0.6748 - accuracy: 0.6520
Epoch 10/50
39/39 [=====] - 0s 3ms/step - loss: 0.6667 - accuracy: 0.6520
Epoch 11/50
39/39 [=====] - 0s 3ms/step - loss: 0.6619 - accuracy: 0.6520
```

Epoch 12/50
39/39 [=====] - 0s 2ms/step - loss: 0.6590 - accuracy: 0.6520
Epoch 13/50
39/39 [=====] - 0s 5ms/step - loss: 0.6571 - accuracy: 0.6520
Epoch 14/50
39/39 [=====] - 0s 3ms/step - loss: 0.6554 - accuracy: 0.6520
Epoch 15/50
39/39 [=====] - 0s 3ms/step - loss: 0.6541 - accuracy: 0.6520
Epoch 16/50
39/39 [=====] - 0s 2ms/step - loss: 0.6534 - accuracy: 0.6520
Epoch 17/50
39/39 [=====] - 0s 3ms/step - loss: 0.6519 - accuracy: 0.6520
Epoch 18/50
39/39 [=====] - 0s 5ms/step - loss: 0.6510 - accuracy: 0.6520
Epoch 19/50
39/39 [=====] - 0s 2ms/step - loss: 0.6502 - accuracy: 0.6520
Epoch 20/50
39/39 [=====] - 0s 3ms/step - loss: 0.6497 - accuracy: 0.6520
Epoch 21/50
39/39 [=====] - 0s 2ms/step - loss: 0.6491 - accuracy: 0.6520
Epoch 22/50
39/39 [=====] - 0s 3ms/step - loss: 0.6487 - accuracy: 0.6520
Epoch 23/50
39/39 [=====] - 0s 3ms/step - loss: 0.6483 - accuracy: 0.6520
Epoch 24/50
39/39 [=====] - 0s 2ms/step - loss: 0.6479 - accuracy: 0.6520
Epoch 25/50
39/39 [=====] - 0s 2ms/step - loss: 0.6476 - accuracy: 0.6520
Epoch 26/50
39/39 [=====] - 0s 3ms/step - loss: 0.6474 - accuracy: 0.6520
Epoch 27/50
39/39 [=====] - 0s 2ms/step - loss: 0.6472 - accuracy: 0.6520
Epoch 28/50
39/39 [=====] - 0s 2ms/step - loss: 0.6469 - accuracy: 0.6520
Epoch 29/50
39/39 [=====] - 0s 2ms/step - loss: 0.6469 - accuracy: 0.6520
Epoch 30/50
39/39 [=====] - 0s 2ms/step - loss: 0.6467 - accuracy: 0.6520
Epoch 31/50
39/39 [=====] - 0s 3ms/step - loss: 0.6466 - accuracy: 0.6520
Epoch 32/50
39/39 [=====] - 0s 2ms/step - loss: 0.6465 - accuracy: 0.6520
Epoch 33/50
39/39 [=====] - 0s 4ms/step - loss: 0.6465 - accuracy: 0.6520
Epoch 34/50
39/39 [=====] - 0s 2ms/step - loss: 0.6464 - accuracy: 0.6520
Epoch 35/50
39/39 [=====] - 0s 2ms/step - loss: 0.6464 - accuracy: 0.6520
Epoch 36/50
39/39 [=====] - 0s 3ms/step - loss: 0.6464 - accuracy: 0.6520
Epoch 37/50
39/39 [=====] - 0s 3ms/step - loss: 0.6464 - accuracy: 0.6520
Epoch 38/50
39/39 [=====] - 0s 3ms/step - loss: 0.6464 - accuracy: 0.6520
Epoch 39/50
39/39 [=====] - 0s 3ms/step - loss: 0.6463 - accuracy: 0.6520
Epoch 40/50
39/39 [=====] - 0s 4ms/step - loss: 0.6463 - accuracy: 0.6520
Epoch 41/50
39/39 [=====] - 0s 2ms/step - loss: 0.6463 - accuracy: 0.6520
Epoch 42/50
39/39 [=====] - 0s 3ms/step - loss: 0.6463 - accuracy: 0.6520
Epoch 43/50
39/39 [=====] - 0s 2ms/step - loss: 0.6463 - accuracy: 0.6520
Epoch 44/50
39/39 [=====] - 0s 3ms/step - loss: 0.6463 - accuracy: 0.6520
Epoch 45/50
39/39 [=====] - 0s 2ms/step - loss: 0.6463 - accuracy: 0.6520
Epoch 46/50
39/39 [=====] - 0s 2ms/step - loss: 0.6463 - accuracy: 0.6520
Epoch 47/50
39/39 [=====] - 0s 2ms/step - loss: 0.6463 - accuracy: 0.6520
Epoch 48/50
39/39 [=====] - 0s 2ms/step - loss: 0.6463 - accuracy: 0.6520
Epoch 49/50
39/39 [=====] - 0s 2ms/step - loss: 0.6463 - accuracy: 0.6520
Epoch 50/50
39/39 [=====] - 0s 2ms/step - loss: 0.6462 - accuracy: 0.6520
10/10 [=====] - 0s 1ms/step - loss: 0.6493 - accuracy: 0.6471
Epoch 1/50
39/39 [=====] - 0s 1ms/step - loss: 3.1876 - accuracy: 0.6091
Epoch 2/50

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39/39 [=====] - 0s 2ms/step - loss: 1.9102 - accuracy: 0.6433
Epoch 3/50
39/39 [=====] - 0s 2ms/step - loss: 1.7254 - accuracy: 0.6482
Epoch 4/50
39/39 [=====] - 0s 2ms/step - loss: 1.5698 - accuracy: 0.6482
Epoch 5/50
39/39 [=====] - 0s 2ms/step - loss: 1.4316 - accuracy: 0.6498
Epoch 6/50
39/39 [=====] - 0s 3ms/step - loss: 1.3155 - accuracy: 0.6515
Epoch 7/50
39/39 [=====] - 0s 2ms/step - loss: 1.2196 - accuracy: 0.6515
Epoch 8/50
39/39 [=====] - 0s 3ms/step - loss: 1.1373 - accuracy: 0.6498
Epoch 9/50
39/39 [=====] - 0s 2ms/step - loss: 1.0601 - accuracy: 0.6515
Epoch 10/50
39/39 [=====] - 0s 2ms/step - loss: 1.0005 - accuracy: 0.6515
Epoch 11/50
39/39 [=====] - 0s 2ms/step - loss: 0.9452 - accuracy: 0.6498
Epoch 12/50
39/39 [=====] - 0s 2ms/step - loss: 0.8968 - accuracy: 0.6515
Epoch 13/50
39/39 [=====] - 0s 2ms/step - loss: 0.8577 - accuracy: 0.6515
Epoch 14/50
39/39 [=====] - 0s 2ms/step - loss: 0.8222 - accuracy: 0.6515
Epoch 15/50
39/39 [=====] - 0s 2ms/step - loss: 0.7968 - accuracy: 0.6515
Epoch 16/50
39/39 [=====] - 0s 2ms/step - loss: 0.7736 - accuracy: 0.6515
Epoch 17/50
39/39 [=====] - 0s 2ms/step - loss: 0.7545 - accuracy: 0.6515
Epoch 18/50
39/39 [=====] - 0s 2ms/step - loss: 0.7422 - accuracy: 0.6515
Epoch 19/50
39/39 [=====] - 0s 2ms/step - loss: 0.7282 - accuracy: 0.6515
Epoch 20/50
39/39 [=====] - 0s 2ms/step - loss: 0.7195 - accuracy: 0.6515
Epoch 21/50
39/39 [=====] - 0s 2ms/step - loss: 0.7060 - accuracy: 0.6515
Epoch 22/50
39/39 [=====] - 0s 2ms/step - loss: 0.6902 - accuracy: 0.6515
Epoch 23/50
39/39 [=====] - 0s 2ms/step - loss: 0.6822 - accuracy: 0.6515
Epoch 24/50
39/39 [=====] - 0s 2ms/step - loss: 0.6795 - accuracy: 0.6515
Epoch 25/50
39/39 [=====] - 0s 3ms/step - loss: 0.6740 - accuracy: 0.6515
Epoch 26/50
39/39 [=====] - 0s 3ms/step - loss: 0.6816 - accuracy: 0.6515
Epoch 27/50
39/39 [=====] - 0s 2ms/step - loss: 0.6618 - accuracy: 0.6515
Epoch 28/50
39/39 [=====] - 0s 2ms/step - loss: 0.6632 - accuracy: 0.6515
Epoch 29/50
39/39 [=====] - 0s 2ms/step - loss: 0.6549 - accuracy: 0.6515
Epoch 30/50
39/39 [=====] - 0s 2ms/step - loss: 0.6576 - accuracy: 0.6515
Epoch 31/50
39/39 [=====] - 0s 2ms/step - loss: 0.6553 - accuracy: 0.6515
Epoch 32/50
39/39 [=====] - 0s 3ms/step - loss: 0.6584 - accuracy: 0.6515
Epoch 33/50
39/39 [=====] - 0s 3ms/step - loss: 0.6534 - accuracy: 0.6515
Epoch 34/50
39/39 [=====] - 0s 2ms/step - loss: 0.6516 - accuracy: 0.6515
Epoch 35/50
39/39 [=====] - 0s 2ms/step - loss: 0.6455 - accuracy: 0.6678
Epoch 36/50
39/39 [=====] - 0s 2ms/step - loss: 0.6400 - accuracy: 0.6710
Epoch 37/50
39/39 [=====] - 0s 2ms/step - loss: 0.6392 - accuracy: 0.6629
Epoch 38/50
39/39 [=====] - 0s 2ms/step - loss: 0.6411 - accuracy: 0.6629
Epoch 39/50
39/39 [=====] - 0s 2ms/step - loss: 0.6362 - accuracy: 0.6629
Epoch 40/50
39/39 [=====] - 0s 2ms/step - loss: 0.6340 - accuracy: 0.6743
Epoch 41/50
39/39 [=====] - 0s 3ms/step - loss: 0.6293 - accuracy: 0.6726
Epoch 42/50
39/39 [=====] - 0s 2ms/step - loss: 0.6319 - accuracy: 0.6775
Epoch 43/50
```

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39/39 [=====] - 0s 3ms/step - loss: 0.6300 - accuracy: 0.6743
Epoch 44/50
39/39 [=====] - 0s 2ms/step - loss: 0.6332 - accuracy: 0.6726
Epoch 45/50
39/39 [=====] - 0s 2ms/step - loss: 0.6312 - accuracy: 0.6743
Epoch 46/50
39/39 [=====] - 0s 2ms/step - loss: 0.6377 - accuracy: 0.6694
Epoch 47/50
39/39 [=====] - 0s 3ms/step - loss: 0.6290 - accuracy: 0.6824
Epoch 48/50
39/39 [=====] - 0s 2ms/step - loss: 0.6371 - accuracy: 0.6726
Epoch 49/50
39/39 [=====] - 0s 2ms/step - loss: 0.6284 - accuracy: 0.6661
Epoch 50/50
39/39 [=====] - 0s 2ms/step - loss: 0.6287 - accuracy: 0.6629
10/10 [=====] - 0s 1ms/step - loss: 0.6423 - accuracy: 0.6364
Epoch 1/50
39/39 [=====] - 0s 2ms/step - loss: 4.4580 - accuracy: 0.6352
Epoch 2/50
39/39 [=====] - 0s 2ms/step - loss: 1.8817 - accuracy: 0.6743
Epoch 3/50
39/39 [=====] - 0s 2ms/step - loss: 1.6957 - accuracy: 0.6726
Epoch 4/50
39/39 [=====] - 0s 2ms/step - loss: 1.5367 - accuracy: 0.6775
Epoch 5/50
39/39 [=====] - 0s 2ms/step - loss: 1.4028 - accuracy: 0.6792
Epoch 6/50
39/39 [=====] - 0s 1ms/step - loss: 1.2865 - accuracy: 0.6840
Epoch 7/50
39/39 [=====] - 0s 2ms/step - loss: 1.1887 - accuracy: 0.6840
Epoch 8/50
39/39 [=====] - 0s 3ms/step - loss: 1.1057 - accuracy: 0.6792
Epoch 9/50
39/39 [=====] - 0s 2ms/step - loss: 1.0368 - accuracy: 0.6808
Epoch 10/50
39/39 [=====] - 0s 2ms/step - loss: 0.9768 - accuracy: 0.6759
Epoch 11/50
39/39 [=====] - 0s 3ms/step - loss: 0.9279 - accuracy: 0.6792
Epoch 12/50
39/39 [=====] - 0s 3ms/step - loss: 0.8803 - accuracy: 0.6824
Epoch 13/50
39/39 [=====] - 0s 2ms/step - loss: 0.8410 - accuracy: 0.6824
Epoch 14/50
39/39 [=====] - 0s 2ms/step - loss: 0.8141 - accuracy: 0.6726
Epoch 15/50
39/39 [=====] - 0s 2ms/step - loss: 0.7827 - accuracy: 0.6678
Epoch 16/50
39/39 [=====] - 0s 2ms/step - loss: 0.7618 - accuracy: 0.6759
Epoch 17/50
39/39 [=====] - 0s 2ms/step - loss: 0.7381 - accuracy: 0.6824
Epoch 18/50
39/39 [=====] - 0s 2ms/step - loss: 0.7219 - accuracy: 0.6775
Epoch 19/50
39/39 [=====] - 0s 2ms/step - loss: 0.7028 - accuracy: 0.6873
Epoch 20/50
39/39 [=====] - 0s 3ms/step - loss: 0.6933 - accuracy: 0.6775
Epoch 21/50
39/39 [=====] - 0s 2ms/step - loss: 0.6766 - accuracy: 0.6840
Epoch 22/50
39/39 [=====] - 0s 2ms/step - loss: 0.6652 - accuracy: 0.6710
Epoch 23/50
39/39 [=====] - 0s 3ms/step - loss: 0.6552 - accuracy: 0.6759
Epoch 24/50
39/39 [=====] - 0s 2ms/step - loss: 0.6486 - accuracy: 0.6971
Epoch 25/50
39/39 [=====] - 0s 2ms/step - loss: 0.6405 - accuracy: 0.6873
Epoch 26/50
39/39 [=====] - 0s 2ms/step - loss: 0.6352 - accuracy: 0.6889
Epoch 27/50
39/39 [=====] - 0s 2ms/step - loss: 0.6338 - accuracy: 0.6889
Epoch 28/50
39/39 [=====] - 0s 2ms/step - loss: 0.6241 - accuracy: 0.7003
Epoch 29/50
39/39 [=====] - 0s 2ms/step - loss: 0.6252 - accuracy: 0.7036
Epoch 30/50
39/39 [=====] - 0s 2ms/step - loss: 0.6106 - accuracy: 0.6971
Epoch 31/50
39/39 [=====] - 0s 4ms/step - loss: 0.6241 - accuracy: 0.7003
Epoch 32/50
39/39 [=====] - 0s 2ms/step - loss: 0.6138 - accuracy: 0.7134
Epoch 33/50
39/39 [=====] - 0s 2ms/step - loss: 0.6023 - accuracy: 0.7068
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Epoch 34/50
39/39 [=====] - 0s 3ms/step - loss: 0.6024 - accuracy: 0.7101
Epoch 35/50
39/39 [=====] - 0s 2ms/step - loss: 0.6112 - accuracy: 0.7020
Epoch 36/50
39/39 [=====] - 0s 3ms/step - loss: 0.6074 - accuracy: 0.7003
Epoch 37/50
39/39 [=====] - 0s 2ms/step - loss: 0.5938 - accuracy: 0.7052
Epoch 38/50
39/39 [=====] - 0s 2ms/step - loss: 0.6115 - accuracy: 0.7020
Epoch 39/50
39/39 [=====] - 0s 2ms/step - loss: 0.5938 - accuracy: 0.7117
Epoch 40/50
39/39 [=====] - 0s 2ms/step - loss: 0.5954 - accuracy: 0.7052
Epoch 41/50
39/39 [=====] - 0s 2ms/step - loss: 0.5954 - accuracy: 0.6938
Epoch 42/50
39/39 [=====] - 0s 2ms/step - loss: 0.5965 - accuracy: 0.7036
Epoch 43/50
39/39 [=====] - 0s 2ms/step - loss: 0.6013 - accuracy: 0.6857
Epoch 44/50
39/39 [=====] - 0s 2ms/step - loss: 0.5948 - accuracy: 0.7052
Epoch 45/50
39/39 [=====] - 0s 2ms/step - loss: 0.6059 - accuracy: 0.6857
Epoch 46/50
39/39 [=====] - 0s 2ms/step - loss: 0.5874 - accuracy: 0.7101
Epoch 47/50
39/39 [=====] - 0s 2ms/step - loss: 0.6111 - accuracy: 0.6840
Epoch 48/50
39/39 [=====] - 0s 2ms/step - loss: 0.5933 - accuracy: 0.7068
Epoch 49/50
39/39 [=====] - 0s 2ms/step - loss: 0.5911 - accuracy: 0.6938
Epoch 50/50
39/39 [=====] - 0s 2ms/step - loss: 0.5984 - accuracy: 0.6938
10/10 [=====] - 0s 1ms/step - loss: 0.7457 - accuracy: 0.5649
Epoch 1/50
39/39 [=====] - 0s 1ms/step - loss: 4.2446 - accuracy: 0.5945
Epoch 2/50
39/39 [=====] - 0s 2ms/step - loss: 1.6575 - accuracy: 0.6531
Epoch 3/50
39/39 [=====] - 0s 2ms/step - loss: 1.5025 - accuracy: 0.6629
Epoch 4/50
39/39 [=====] - 0s 2ms/step - loss: 1.3821 - accuracy: 0.6629
Epoch 5/50
39/39 [=====] - 0s 2ms/step - loss: 1.2695 - accuracy: 0.6629
Epoch 6/50
39/39 [=====] - 0s 2ms/step - loss: 1.1766 - accuracy: 0.6612
Epoch 7/50
39/39 [=====] - 0s 2ms/step - loss: 1.0890 - accuracy: 0.6726
Epoch 8/50
39/39 [=====] - 0s 2ms/step - loss: 1.0302 - accuracy: 0.6645
Epoch 9/50
39/39 [=====] - 0s 2ms/step - loss: 0.9705 - accuracy: 0.6678
Epoch 10/50
39/39 [=====] - 0s 2ms/step - loss: 0.9242 - accuracy: 0.6743
Epoch 11/50
39/39 [=====] - 0s 4ms/step - loss: 0.8748 - accuracy: 0.6743
Epoch 12/50
39/39 [=====] - 0s 3ms/step - loss: 0.8444 - accuracy: 0.6596
Epoch 13/50
39/39 [=====] - 0s 2ms/step - loss: 0.8209 - accuracy: 0.6775
Epoch 14/50
39/39 [=====] - 0s 2ms/step - loss: 0.7823 - accuracy: 0.6873
Epoch 15/50
39/39 [=====] - 0s 2ms/step - loss: 0.7638 - accuracy: 0.6775
Epoch 16/50
39/39 [=====] - 0s 2ms/step - loss: 0.7483 - accuracy: 0.6759
Epoch 17/50
39/39 [=====] - 0s 2ms/step - loss: 0.7326 - accuracy: 0.6873
Epoch 18/50
39/39 [=====] - 0s 2ms/step - loss: 0.7120 - accuracy: 0.6824
Epoch 19/50
39/39 [=====] - 0s 2ms/step - loss: 0.7039 - accuracy: 0.6873
Epoch 20/50
39/39 [=====] - 0s 2ms/step - loss: 0.6951 - accuracy: 0.6824
Epoch 21/50
39/39 [=====] - 0s 2ms/step - loss: 0.6867 - accuracy: 0.6759
Epoch 22/50
39/39 [=====] - 0s 3ms/step - loss: 0.6735 - accuracy: 0.6954
Epoch 23/50
39/39 [=====] - 0s 2ms/step - loss: 0.6719 - accuracy: 0.6889
Epoch 24/50
```

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39/39 [=====] - 0s 2ms/step - loss: 0.6650 - accuracy: 0.7003
Epoch 25/50
39/39 [=====] - 0s 2ms/step - loss: 0.6563 - accuracy: 0.6792
Epoch 26/50
39/39 [=====] - 0s 2ms/step - loss: 0.6540 - accuracy: 0.6694
Epoch 27/50
39/39 [=====] - 0s 3ms/step - loss: 0.6428 - accuracy: 0.6775
Epoch 28/50
39/39 [=====] - 0s 2ms/step - loss: 0.6484 - accuracy: 0.6824
Epoch 29/50
39/39 [=====] - 0s 2ms/step - loss: 0.6425 - accuracy: 0.6873
Epoch 30/50
39/39 [=====] - 0s 3ms/step - loss: 0.6443 - accuracy: 0.6906
Epoch 31/50
39/39 [=====] - 0s 2ms/step - loss: 0.6331 - accuracy: 0.6857
Epoch 32/50
39/39 [=====] - 0s 2ms/step - loss: 0.6265 - accuracy: 0.7101
Epoch 33/50
39/39 [=====] - 0s 2ms/step - loss: 0.6509 - accuracy: 0.6889
Epoch 34/50
39/39 [=====] - 0s 2ms/step - loss: 0.6371 - accuracy: 0.6971
Epoch 35/50
39/39 [=====] - 0s 2ms/step - loss: 0.6269 - accuracy: 0.6938
Epoch 36/50
39/39 [=====] - 0s 2ms/step - loss: 0.6337 - accuracy: 0.6889
Epoch 37/50
39/39 [=====] - 0s 2ms/step - loss: 0.6371 - accuracy: 0.6873
Epoch 38/50
39/39 [=====] - 0s 2ms/step - loss: 0.6309 - accuracy: 0.6857
Epoch 39/50
39/39 [=====] - 0s 2ms/step - loss: 0.6294 - accuracy: 0.6792
Epoch 40/50
39/39 [=====] - 0s 2ms/step - loss: 0.6252 - accuracy: 0.7036
Epoch 41/50
39/39 [=====] - 0s 2ms/step - loss: 0.6323 - accuracy: 0.6873
Epoch 42/50
39/39 [=====] - 0s 2ms/step - loss: 0.6280 - accuracy: 0.6873
Epoch 43/50
39/39 [=====] - 0s 2ms/step - loss: 0.6278 - accuracy: 0.6808
Epoch 44/50
39/39 [=====] - 0s 2ms/step - loss: 0.6268 - accuracy: 0.6808
Epoch 45/50
39/39 [=====] - 0s 2ms/step - loss: 0.6290 - accuracy: 0.6938
Epoch 46/50
39/39 [=====] - 0s 3ms/step - loss: 0.6212 - accuracy: 0.6889
Epoch 47/50
39/39 [=====] - 0s 1ms/step - loss: 0.6282 - accuracy: 0.6938
Epoch 48/50
39/39 [=====] - 0s 1ms/step - loss: 0.6504 - accuracy: 0.6759
Epoch 49/50
39/39 [=====] - 0s 2ms/step - loss: 0.6233 - accuracy: 0.6808
Epoch 50/50
39/39 [=====] - 0s 2ms/step - loss: 0.6257 - accuracy: 0.6840
10/10 [=====] - 0s 1ms/step - loss: 0.6174 - accuracy: 0.6883
Epoch 1/50
39/39 [=====] - 0s 1ms/step - loss: 2.5207 - accuracy: 0.5935
Epoch 2/50
39/39 [=====] - 0s 1ms/step - loss: 2.0117 - accuracy: 0.6325
Epoch 3/50
39/39 [=====] - 0s 2ms/step - loss: 1.8171 - accuracy: 0.6276
Epoch 4/50
39/39 [=====] - 0s 2ms/step - loss: 1.6501 - accuracy: 0.6276
Epoch 5/50
39/39 [=====] - 0s 2ms/step - loss: 1.5031 - accuracy: 0.6276
Epoch 6/50
39/39 [=====] - 0s 2ms/step - loss: 1.3828 - accuracy: 0.6276
Epoch 7/50
39/39 [=====] - 0s 2ms/step - loss: 1.2748 - accuracy: 0.6276
Epoch 8/50
39/39 [=====] - 0s 2ms/step - loss: 1.1847 - accuracy: 0.6276
Epoch 9/50
39/39 [=====] - 0s 1ms/step - loss: 1.1109 - accuracy: 0.6276
Epoch 10/50
39/39 [=====] - 0s 1ms/step - loss: 1.0442 - accuracy: 0.6276
Epoch 11/50
39/39 [=====] - 0s 2ms/step - loss: 0.9868 - accuracy: 0.6276
Epoch 12/50
39/39 [=====] - 0s 2ms/step - loss: 0.9419 - accuracy: 0.6276
Epoch 13/50
39/39 [=====] - 0s 2ms/step - loss: 0.9008 - accuracy: 0.6276
Epoch 14/50
39/39 [=====] - 0s 2ms/step - loss: 0.8655 - accuracy: 0.6276
```

Epoch 15/50
39/39 [=====] - 0s 2ms/step - loss: 0.8337 - accuracy: 0.6276
Epoch 16/50
39/39 [=====] - 0s 2ms/step - loss: 0.8097 - accuracy: 0.6276
Epoch 17/50
39/39 [=====] - 0s 2ms/step - loss: 0.7866 - accuracy: 0.6276
Epoch 18/50
39/39 [=====] - 0s 3ms/step - loss: 0.7659 - accuracy: 0.6276
Epoch 19/50
39/39 [=====] - 0s 3ms/step - loss: 0.7528 - accuracy: 0.6276
Epoch 20/50
39/39 [=====] - 0s 2ms/step - loss: 0.7362 - accuracy: 0.6276
Epoch 21/50
39/39 [=====] - 0s 2ms/step - loss: 0.7276 - accuracy: 0.6276
Epoch 22/50
39/39 [=====] - 0s 2ms/step - loss: 0.7144 - accuracy: 0.6276
Epoch 23/50
39/39 [=====] - 0s 2ms/step - loss: 0.7045 - accuracy: 0.6276
Epoch 24/50
39/39 [=====] - 0s 2ms/step - loss: 0.6988 - accuracy: 0.6276
Epoch 25/50
39/39 [=====] - 0s 2ms/step - loss: 0.6930 - accuracy: 0.6276
Epoch 26/50
39/39 [=====] - 0s 2ms/step - loss: 0.6880 - accuracy: 0.6276
Epoch 27/50
39/39 [=====] - 0s 2ms/step - loss: 0.6827 - accuracy: 0.6276
Epoch 28/50
39/39 [=====] - 0s 1ms/step - loss: 0.6792 - accuracy: 0.6260
Epoch 29/50
39/39 [=====] - 0s 2ms/step - loss: 0.6695 - accuracy: 0.6260
Epoch 30/50
39/39 [=====] - 0s 2ms/step - loss: 0.6742 - accuracy: 0.6325
Epoch 31/50
39/39 [=====] - 0s 1ms/step - loss: 0.6684 - accuracy: 0.6341
Epoch 32/50
39/39 [=====] - 0s 4ms/step - loss: 0.6615 - accuracy: 0.6244
Epoch 33/50
39/39 [=====] - 0s 2ms/step - loss: 0.6641 - accuracy: 0.6341
Epoch 34/50
39/39 [=====] - 0s 2ms/step - loss: 0.6614 - accuracy: 0.6390
Epoch 35/50
39/39 [=====] - 0s 3ms/step - loss: 0.6548 - accuracy: 0.6423
Epoch 36/50
39/39 [=====] - 0s 2ms/step - loss: 0.6592 - accuracy: 0.6602
Epoch 37/50
39/39 [=====] - 0s 2ms/step - loss: 0.6608 - accuracy: 0.6537
Epoch 38/50
39/39 [=====] - 0s 3ms/step - loss: 0.6472 - accuracy: 0.6650
Epoch 39/50
39/39 [=====] - 0s 2ms/step - loss: 0.6470 - accuracy: 0.6569
Epoch 40/50
39/39 [=====] - 0s 2ms/step - loss: 0.6441 - accuracy: 0.6764
Epoch 41/50
39/39 [=====] - 0s 2ms/step - loss: 0.6495 - accuracy: 0.6748
Epoch 42/50
39/39 [=====] - 0s 2ms/step - loss: 0.6502 - accuracy: 0.6618
Epoch 43/50
39/39 [=====] - 0s 2ms/step - loss: 0.6439 - accuracy: 0.6585
Epoch 44/50
39/39 [=====] - 0s 2ms/step - loss: 0.6413 - accuracy: 0.6780
Epoch 45/50
39/39 [=====] - 0s 2ms/step - loss: 0.6464 - accuracy: 0.6634
Epoch 46/50
39/39 [=====] - 0s 2ms/step - loss: 0.6477 - accuracy: 0.6667
Epoch 47/50
39/39 [=====] - 0s 2ms/step - loss: 0.6447 - accuracy: 0.6569
Epoch 48/50
39/39 [=====] - 0s 2ms/step - loss: 0.6422 - accuracy: 0.6862
Epoch 49/50
39/39 [=====] - 0s 3ms/step - loss: 0.6420 - accuracy: 0.6585
Epoch 50/50
39/39 [=====] - 0s 2ms/step - loss: 0.6387 - accuracy: 0.6829
10/10 [=====] - 0s 1ms/step - loss: 0.5631 - accuracy: 0.7647
Epoch 1/50
39/39 [=====] - 0s 2ms/step - loss: 2.8054 - accuracy: 0.6374
Epoch 2/50
39/39 [=====] - 0s 2ms/step - loss: 1.9472 - accuracy: 0.6553
Epoch 3/50
39/39 [=====] - 0s 2ms/step - loss: 1.7255 - accuracy: 0.6537
Epoch 4/50
39/39 [=====] - 0s 2ms/step - loss: 1.5629 - accuracy: 0.6553
Epoch 5/50

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39/39 [=====] - 0s 2ms/step - loss: 1.4265 - accuracy: 0.6585
Epoch 6/50
39/39 [=====] - 0s 2ms/step - loss: 1.3104 - accuracy: 0.6553
Epoch 7/50
39/39 [=====] - 0s 2ms/step - loss: 1.2116 - accuracy: 0.6569
Epoch 8/50
39/39 [=====] - 0s 2ms/step - loss: 1.1290 - accuracy: 0.6537
Epoch 9/50
39/39 [=====] - 0s 2ms/step - loss: 1.0519 - accuracy: 0.6569
Epoch 10/50
39/39 [=====] - 0s 2ms/step - loss: 0.9935 - accuracy: 0.6488
Epoch 11/50
39/39 [=====] - 0s 3ms/step - loss: 0.9426 - accuracy: 0.6504
Epoch 12/50
39/39 [=====] - 0s 2ms/step - loss: 0.9000 - accuracy: 0.6553
Epoch 13/50
39/39 [=====] - 0s 3ms/step - loss: 0.8537 - accuracy: 0.6618
Epoch 14/50
39/39 [=====] - 0s 2ms/step - loss: 0.8221 - accuracy: 0.6504
Epoch 15/50
39/39 [=====] - 0s 2ms/step - loss: 0.7971 - accuracy: 0.6569
Epoch 16/50
39/39 [=====] - 0s 2ms/step - loss: 0.7759 - accuracy: 0.6618
Epoch 17/50
39/39 [=====] - 0s 2ms/step - loss: 0.7554 - accuracy: 0.6602
Epoch 18/50
39/39 [=====] - 0s 2ms/step - loss: 0.7344 - accuracy: 0.6715
Epoch 19/50
39/39 [=====] - 0s 2ms/step - loss: 0.7319 - accuracy: 0.6732
Epoch 20/50
39/39 [=====] - 0s 2ms/step - loss: 0.7125 - accuracy: 0.6667
Epoch 21/50
39/39 [=====] - 0s 2ms/step - loss: 0.6977 - accuracy: 0.6650
Epoch 22/50
39/39 [=====] - 0s 2ms/step - loss: 0.6932 - accuracy: 0.6569
Epoch 23/50
39/39 [=====] - 0s 3ms/step - loss: 0.6790 - accuracy: 0.6634
Epoch 24/50
39/39 [=====] - 0s 2ms/step - loss: 0.6700 - accuracy: 0.6797
Epoch 25/50
39/39 [=====] - 0s 3ms/step - loss: 0.6570 - accuracy: 0.6797
Epoch 26/50
39/39 [=====] - 0s 3ms/step - loss: 0.6675 - accuracy: 0.6667
Epoch 27/50
39/39 [=====] - 0s 3ms/step - loss: 0.6509 - accuracy: 0.6894
Epoch 28/50
39/39 [=====] - 0s 3ms/step - loss: 0.6425 - accuracy: 0.6797
Epoch 29/50
39/39 [=====] - 0s 2ms/step - loss: 0.6506 - accuracy: 0.6650
Epoch 30/50
39/39 [=====] - 0s 2ms/step - loss: 0.6431 - accuracy: 0.6748
Epoch 31/50
39/39 [=====] - 0s 3ms/step - loss: 0.6418 - accuracy: 0.6764
Epoch 32/50
39/39 [=====] - 0s 2ms/step - loss: 0.6335 - accuracy: 0.6813
Epoch 33/50
39/39 [=====] - 0s 2ms/step - loss: 0.6361 - accuracy: 0.6715
Epoch 34/50
39/39 [=====] - 0s 2ms/step - loss: 0.6301 - accuracy: 0.6748
Epoch 35/50
39/39 [=====] - 0s 2ms/step - loss: 0.6332 - accuracy: 0.6748
Epoch 36/50
39/39 [=====] - 0s 2ms/step - loss: 0.6267 - accuracy: 0.6878
Epoch 37/50
39/39 [=====] - 0s 2ms/step - loss: 0.6312 - accuracy: 0.6797
Epoch 38/50
39/39 [=====] - 0s 2ms/step - loss: 0.6252 - accuracy: 0.6748
Epoch 39/50
39/39 [=====] - 0s 3ms/step - loss: 0.6342 - accuracy: 0.6797
Epoch 40/50
39/39 [=====] - 0s 2ms/step - loss: 0.6229 - accuracy: 0.6813
Epoch 41/50
39/39 [=====] - 0s 2ms/step - loss: 0.6343 - accuracy: 0.6878
Epoch 42/50
39/39 [=====] - 0s 2ms/step - loss: 0.6290 - accuracy: 0.6959
Epoch 43/50
39/39 [=====] - 0s 2ms/step - loss: 0.6207 - accuracy: 0.6732
Epoch 44/50
39/39 [=====] - 0s 1ms/step - loss: 0.6194 - accuracy: 0.6829
Epoch 45/50
39/39 [=====] - 0s 3ms/step - loss: 0.6165 - accuracy: 0.6813
Epoch 46/50
```



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39/39 [=====] - 0s 3ms/step - loss: 0.6244 - accuracy: 0.6862
Epoch 47/50
39/39 [=====] - 0s 3ms/step - loss: 0.6199 - accuracy: 0.6911
Epoch 48/50
39/39 [=====] - 0s 2ms/step - loss: 0.6262 - accuracy: 0.6846
Epoch 49/50
39/39 [=====] - 0s 2ms/step - loss: 0.6232 - accuracy: 0.6732
Epoch 50/50
39/39 [=====] - 0s 2ms/step - loss: 0.6209 - accuracy: 0.6943
10/10 [=====] - 0s 1ms/step - loss: 0.6192 - accuracy: 0.6732
Epoch 1/75
39/39 [=====] - 0s 2ms/step - loss: 1.9589 - accuracy: 0.5733
Epoch 2/75
39/39 [=====] - 0s 2ms/step - loss: 0.8731 - accuracy: 0.6336
Epoch 3/75
39/39 [=====] - 0s 3ms/step - loss: 0.8073 - accuracy: 0.6466
Epoch 4/75
39/39 [=====] - 0s 2ms/step - loss: 0.7924 - accuracy: 0.6352
Epoch 5/75
39/39 [=====] - 0s 2ms/step - loss: 0.7937 - accuracy: 0.6515
Epoch 6/75
39/39 [=====] - 0s 2ms/step - loss: 0.7837 - accuracy: 0.6515
Epoch 7/75
39/39 [=====] - 0s 3ms/step - loss: 0.7724 - accuracy: 0.6531
Epoch 8/75
39/39 [=====] - 0s 2ms/step - loss: 0.7765 - accuracy: 0.6531
Epoch 9/75
39/39 [=====] - 0s 4ms/step - loss: 0.7709 - accuracy: 0.6547
Epoch 10/75
39/39 [=====] - 0s 4ms/step - loss: 0.7698 - accuracy: 0.6547
Epoch 11/75
39/39 [=====] - 0s 3ms/step - loss: 0.7703 - accuracy: 0.6515
Epoch 12/75
39/39 [=====] - 0s 2ms/step - loss: 0.7606 - accuracy: 0.6531
Epoch 13/75
39/39 [=====] - 0s 2ms/step - loss: 0.7606 - accuracy: 0.6547
Epoch 14/75
39/39 [=====] - 0s 3ms/step - loss: 0.7546 - accuracy: 0.6564
Epoch 15/75
39/39 [=====] - 0s 3ms/step - loss: 0.7507 - accuracy: 0.6531
Epoch 16/75
39/39 [=====] - 0s 2ms/step - loss: 0.7533 - accuracy: 0.6498
Epoch 17/75
39/39 [=====] - 0s 2ms/step - loss: 0.7477 - accuracy: 0.6531
Epoch 18/75
39/39 [=====] - 0s 2ms/step - loss: 0.7460 - accuracy: 0.6547
Epoch 19/75
39/39 [=====] - 0s 2ms/step - loss: 0.7429 - accuracy: 0.6531
Epoch 20/75
39/39 [=====] - 0s 2ms/step - loss: 0.7412 - accuracy: 0.6531
Epoch 21/75
39/39 [=====] - 0s 2ms/step - loss: 0.7345 - accuracy: 0.6531
Epoch 22/75
39/39 [=====] - 0s 2ms/step - loss: 0.7484 - accuracy: 0.6531
Epoch 23/75
39/39 [=====] - 0s 2ms/step - loss: 0.7347 - accuracy: 0.6547
Epoch 24/75
39/39 [=====] - 0s 2ms/step - loss: 0.7466 - accuracy: 0.6531
Epoch 25/75
39/39 [=====] - 0s 4ms/step - loss: 0.7298 - accuracy: 0.6498
Epoch 26/75
39/39 [=====] - 0s 2ms/step - loss: 0.7270 - accuracy: 0.6531
Epoch 27/75
39/39 [=====] - 0s 3ms/step - loss: 0.7255 - accuracy: 0.6531
Epoch 28/75
39/39 [=====] - 0s 2ms/step - loss: 0.7211 - accuracy: 0.6580
Epoch 29/75
39/39 [=====] - 0s 2ms/step - loss: 0.7283 - accuracy: 0.6498
Epoch 30/75
39/39 [=====] - 0s 2ms/step - loss: 0.7207 - accuracy: 0.6531
Epoch 31/75
39/39 [=====] - 0s 2ms/step - loss: 0.7134 - accuracy: 0.6531
Epoch 32/75
39/39 [=====] - 0s 2ms/step - loss: 0.7150 - accuracy: 0.6498
Epoch 33/75
39/39 [=====] - 0s 3ms/step - loss: 0.7134 - accuracy: 0.6547
Epoch 34/75
39/39 [=====] - 0s 2ms/step - loss: 0.7150 - accuracy: 0.6531
Epoch 35/75
39/39 [=====] - 0s 2ms/step - loss: 0.7099 - accuracy: 0.6531
Epoch 36/75
39/39 [=====] - 0s 3ms/step - loss: 0.7096 - accuracy: 0.6515
```

Epoch 37/75
39/39 [=====] - 0s 2ms/step - loss: 0.7059 - accuracy: 0.6531
Epoch 38/75
39/39 [=====] - 0s 1ms/step - loss: 0.7058 - accuracy: 0.6531
Epoch 39/75
39/39 [=====] - 0s 1ms/step - loss: 0.7013 - accuracy: 0.6547
Epoch 40/75
39/39 [=====] - 0s 2ms/step - loss: 0.7082 - accuracy: 0.6531
Epoch 41/75
39/39 [=====] - 0s 3ms/step - loss: 0.6982 - accuracy: 0.6564
Epoch 42/75
39/39 [=====] - 0s 3ms/step - loss: 0.7049 - accuracy: 0.6531
Epoch 43/75
39/39 [=====] - 0s 3ms/step - loss: 0.6985 - accuracy: 0.6515
Epoch 44/75
39/39 [=====] - 0s 2ms/step - loss: 0.6956 - accuracy: 0.6515
Epoch 45/75
39/39 [=====] - 0s 2ms/step - loss: 0.6943 - accuracy: 0.6531
Epoch 46/75
39/39 [=====] - 0s 3ms/step - loss: 0.6980 - accuracy: 0.6531
Epoch 47/75
39/39 [=====] - 0s 2ms/step - loss: 0.6924 - accuracy: 0.6547
Epoch 48/75
39/39 [=====] - 0s 2ms/step - loss: 0.6891 - accuracy: 0.6531
Epoch 49/75
39/39 [=====] - 0s 3ms/step - loss: 0.6910 - accuracy: 0.6531
Epoch 50/75
39/39 [=====] - 0s 3ms/step - loss: 0.6841 - accuracy: 0.6531
Epoch 51/75
39/39 [=====] - 0s 3ms/step - loss: 0.6844 - accuracy: 0.6515
Epoch 52/75
39/39 [=====] - 0s 3ms/step - loss: 0.6836 - accuracy: 0.6531
Epoch 53/75
39/39 [=====] - 0s 2ms/step - loss: 0.6826 - accuracy: 0.6547
Epoch 54/75
39/39 [=====] - 0s 2ms/step - loss: 0.6831 - accuracy: 0.6515
Epoch 55/75
39/39 [=====] - 0s 2ms/step - loss: 0.6821 - accuracy: 0.6515
Epoch 56/75
39/39 [=====] - 0s 2ms/step - loss: 0.6799 - accuracy: 0.6498
Epoch 57/75
39/39 [=====] - 0s 2ms/step - loss: 0.6759 - accuracy: 0.6531
Epoch 58/75
39/39 [=====] - 0s 3ms/step - loss: 0.6791 - accuracy: 0.6547
Epoch 59/75
39/39 [=====] - 0s 2ms/step - loss: 0.6734 - accuracy: 0.6547
Epoch 60/75
39/39 [=====] - 0s 3ms/step - loss: 0.6857 - accuracy: 0.6515
Epoch 61/75
39/39 [=====] - 0s 2ms/step - loss: 0.6700 - accuracy: 0.6547
Epoch 62/75
39/39 [=====] - 0s 2ms/step - loss: 0.6743 - accuracy: 0.6515
Epoch 63/75
39/39 [=====] - 0s 2ms/step - loss: 0.6660 - accuracy: 0.6531
Epoch 64/75
39/39 [=====] - 0s 2ms/step - loss: 0.6662 - accuracy: 0.6547
Epoch 65/75
39/39 [=====] - 0s 2ms/step - loss: 0.6749 - accuracy: 0.6531
Epoch 66/75
39/39 [=====] - 0s 2ms/step - loss: 0.6708 - accuracy: 0.6515
Epoch 67/75
39/39 [=====] - 0s 2ms/step - loss: 0.6788 - accuracy: 0.6531
Epoch 68/75
39/39 [=====] - 0s 2ms/step - loss: 0.6670 - accuracy: 0.6547
Epoch 69/75
39/39 [=====] - 0s 2ms/step - loss: 0.6668 - accuracy: 0.6531
Epoch 70/75
39/39 [=====] - 0s 3ms/step - loss: 0.6679 - accuracy: 0.6531
Epoch 71/75
39/39 [=====] - 0s 2ms/step - loss: 0.6662 - accuracy: 0.6531
Epoch 72/75
39/39 [=====] - 0s 2ms/step - loss: 0.6684 - accuracy: 0.6564
Epoch 73/75
39/39 [=====] - 0s 2ms/step - loss: 0.6630 - accuracy: 0.6531
Epoch 74/75
39/39 [=====] - 0s 2ms/step - loss: 0.6607 - accuracy: 0.6547
Epoch 75/75
39/39 [=====] - 0s 2ms/step - loss: 0.6565 - accuracy: 0.6547
10/10 [=====] - 0s 1ms/step - loss: 0.7847 - accuracy: 0.6494
Epoch 1/75
39/39 [=====] - 1s 1ms/step - loss: 3.0558 - accuracy: 0.5896
Epoch 2/75

39/39 [=====] - 0s 2ms/step - loss: 0.8243 - accuracy: 0.6515
Epoch 3/75
39/39 [=====] - 0s 2ms/step - loss: 0.8103 - accuracy: 0.6564
Epoch 4/75
39/39 [=====] - 0s 2ms/step - loss: 0.8060 - accuracy: 0.6629
Epoch 5/75
39/39 [=====] - 0s 2ms/step - loss: 0.7975 - accuracy: 0.6629
Epoch 6/75
39/39 [=====] - 0s 2ms/step - loss: 0.7852 - accuracy: 0.6694
Epoch 7/75
39/39 [=====] - 0s 3ms/step - loss: 0.7855 - accuracy: 0.6661
Epoch 8/75
39/39 [=====] - 0s 2ms/step - loss: 0.7666 - accuracy: 0.6824
Epoch 9/75
39/39 [=====] - 0s 3ms/step - loss: 0.7723 - accuracy: 0.6792
Epoch 10/75
39/39 [=====] - 0s 2ms/step - loss: 0.7595 - accuracy: 0.6840
Epoch 11/75
39/39 [=====] - 0s 2ms/step - loss: 0.7543 - accuracy: 0.6906
Epoch 12/75
39/39 [=====] - 0s 2ms/step - loss: 0.7497 - accuracy: 0.6808
Epoch 13/75
39/39 [=====] - 0s 3ms/step - loss: 0.7441 - accuracy: 0.6857
Epoch 14/75
39/39 [=====] - 0s 3ms/step - loss: 0.7425 - accuracy: 0.6922
Epoch 15/75
39/39 [=====] - 0s 3ms/step - loss: 0.7443 - accuracy: 0.6857
Epoch 16/75
39/39 [=====] - 0s 2ms/step - loss: 0.7366 - accuracy: 0.6873
Epoch 17/75
39/39 [=====] - 0s 2ms/step - loss: 0.7321 - accuracy: 0.6873
Epoch 18/75
39/39 [=====] - 0s 3ms/step - loss: 0.7282 - accuracy: 0.6840
Epoch 19/75
39/39 [=====] - 0s 2ms/step - loss: 0.7266 - accuracy: 0.6938
Epoch 20/75
39/39 [=====] - 0s 2ms/step - loss: 0.7244 - accuracy: 0.6938
Epoch 21/75
39/39 [=====] - 0s 2ms/step - loss: 0.7186 - accuracy: 0.6840
Epoch 22/75
39/39 [=====] - 0s 2ms/step - loss: 0.7179 - accuracy: 0.6906
Epoch 23/75
39/39 [=====] - 0s 2ms/step - loss: 0.7150 - accuracy: 0.6840
Epoch 24/75
39/39 [=====] - 0s 2ms/step - loss: 0.7118 - accuracy: 0.6840
Epoch 25/75
39/39 [=====] - 0s 2ms/step - loss: 0.7064 - accuracy: 0.6889
Epoch 26/75
39/39 [=====] - 0s 2ms/step - loss: 0.7066 - accuracy: 0.6775
Epoch 27/75
39/39 [=====] - 0s 3ms/step - loss: 0.7046 - accuracy: 0.6987
Epoch 28/75
39/39 [=====] - 0s 2ms/step - loss: 0.6997 - accuracy: 0.6840
Epoch 29/75
39/39 [=====] - 0s 2ms/step - loss: 0.6962 - accuracy: 0.6971
Epoch 30/75
39/39 [=====] - 0s 2ms/step - loss: 0.6988 - accuracy: 0.6971
Epoch 31/75
39/39 [=====] - 0s 2ms/step - loss: 0.6947 - accuracy: 0.6906
Epoch 32/75
39/39 [=====] - 0s 2ms/step - loss: 0.6922 - accuracy: 0.6873
Epoch 33/75
39/39 [=====] - 0s 4ms/step - loss: 0.6888 - accuracy: 0.6840
Epoch 34/75
39/39 [=====] - 0s 2ms/step - loss: 0.6876 - accuracy: 0.6938
Epoch 35/75
39/39 [=====] - 0s 2ms/step - loss: 0.6835 - accuracy: 0.6857
Epoch 36/75
39/39 [=====] - 0s 2ms/step - loss: 0.6823 - accuracy: 0.6759
Epoch 37/75
39/39 [=====] - 0s 2ms/step - loss: 0.6849 - accuracy: 0.6889
Epoch 38/75
39/39 [=====] - 0s 2ms/step - loss: 0.6808 - accuracy: 0.6726
Epoch 39/75
39/39 [=====] - 0s 2ms/step - loss: 0.6799 - accuracy: 0.6857
Epoch 40/75
39/39 [=====] - 0s 2ms/step - loss: 0.6819 - accuracy: 0.6889
Epoch 41/75
39/39 [=====] - 0s 2ms/step - loss: 0.6752 - accuracy: 0.6873
Epoch 42/75
39/39 [=====] - 0s 2ms/step - loss: 0.6713 - accuracy: 0.7020
Epoch 43/75

39/39 [=====] - 0s 2ms/step - loss: 0.6691 - accuracy: 0.6938
Epoch 44/75
39/39 [=====] - 0s 2ms/step - loss: 0.6668 - accuracy: 0.7003
Epoch 45/75
39/39 [=====] - 0s 2ms/step - loss: 0.6630 - accuracy: 0.6987
Epoch 46/75
39/39 [=====] - 0s 2ms/step - loss: 0.6609 - accuracy: 0.6954
Epoch 47/75
39/39 [=====] - 0s 2ms/step - loss: 0.6605 - accuracy: 0.7036
Epoch 48/75
39/39 [=====] - 0s 2ms/step - loss: 0.6620 - accuracy: 0.6922
Epoch 49/75
39/39 [=====] - 0s 2ms/step - loss: 0.6575 - accuracy: 0.6710
Epoch 50/75
39/39 [=====] - 0s 4ms/step - loss: 0.6550 - accuracy: 0.6987
Epoch 51/75
39/39 [=====] - 0s 2ms/step - loss: 0.6628 - accuracy: 0.7020
Epoch 52/75
39/39 [=====] - 0s 2ms/step - loss: 0.6483 - accuracy: 0.7020
Epoch 53/75
39/39 [=====] - 0s 2ms/step - loss: 0.6517 - accuracy: 0.6954
Epoch 54/75
39/39 [=====] - 0s 2ms/step - loss: 0.6543 - accuracy: 0.7003
Epoch 55/75
39/39 [=====] - 0s 3ms/step - loss: 0.6515 - accuracy: 0.7036
Epoch 56/75
39/39 [=====] - 0s 2ms/step - loss: 0.6470 - accuracy: 0.7003
Epoch 57/75
39/39 [=====] - 0s 2ms/step - loss: 0.6442 - accuracy: 0.7068
Epoch 58/75
39/39 [=====] - 0s 3ms/step - loss: 0.6438 - accuracy: 0.6987
Epoch 59/75
39/39 [=====] - 0s 2ms/step - loss: 0.6448 - accuracy: 0.7068
Epoch 60/75
39/39 [=====] - 0s 3ms/step - loss: 0.6416 - accuracy: 0.6906
Epoch 61/75
39/39 [=====] - 0s 2ms/step - loss: 0.6348 - accuracy: 0.7182
Epoch 62/75
39/39 [=====] - 0s 2ms/step - loss: 0.6434 - accuracy: 0.6922
Epoch 63/75
39/39 [=====] - 0s 3ms/step - loss: 0.6337 - accuracy: 0.7101
Epoch 64/75
39/39 [=====] - 0s 3ms/step - loss: 0.6478 - accuracy: 0.6938
Epoch 65/75
39/39 [=====] - 0s 4ms/step - loss: 0.6386 - accuracy: 0.7020
Epoch 66/75
39/39 [=====] - 0s 3ms/step - loss: 0.6322 - accuracy: 0.7036
Epoch 67/75
39/39 [=====] - 0s 3ms/step - loss: 0.6349 - accuracy: 0.6889
Epoch 68/75
39/39 [=====] - 0s 3ms/step - loss: 0.6329 - accuracy: 0.7068
Epoch 69/75
39/39 [=====] - 0s 3ms/step - loss: 0.6354 - accuracy: 0.7068
Epoch 70/75
39/39 [=====] - 0s 2ms/step - loss: 0.6315 - accuracy: 0.7052
Epoch 71/75
39/39 [=====] - 0s 3ms/step - loss: 0.6251 - accuracy: 0.7182
Epoch 72/75
39/39 [=====] - 0s 3ms/step - loss: 0.6324 - accuracy: 0.6971
Epoch 73/75
39/39 [=====] - 0s 3ms/step - loss: 0.6223 - accuracy: 0.7085
Epoch 74/75
39/39 [=====] - 0s 2ms/step - loss: 0.6276 - accuracy: 0.7117
Epoch 75/75
39/39 [=====] - 0s 3ms/step - loss: 0.6245 - accuracy: 0.6987
10/10 [=====] - 0s 1ms/step - loss: 0.7366 - accuracy: 0.6299
Epoch 1/75
39/39 [=====] - 1s 1ms/step - loss: 1.9413 - accuracy: 0.5814
Epoch 2/75
39/39 [=====] - 0s 3ms/step - loss: 0.8397 - accuracy: 0.6075
Epoch 3/75
39/39 [=====] - 0s 3ms/step - loss: 0.8129 - accuracy: 0.6450
Epoch 4/75
39/39 [=====] - 0s 3ms/step - loss: 0.8128 - accuracy: 0.6221
Epoch 5/75
39/39 [=====] - 0s 3ms/step - loss: 0.7994 - accuracy: 0.6531
Epoch 6/75
39/39 [=====] - 0s 2ms/step - loss: 0.7961 - accuracy: 0.6482
Epoch 7/75
39/39 [=====] - 0s 3ms/step - loss: 0.7859 - accuracy: 0.6710
Epoch 8/75
39/39 [=====] - 0s 3ms/step - loss: 0.7810 - accuracy: 0.6612

Epoch 9/75
39/39 [=====] - 0s 3ms/step - loss: 0.7709 - accuracy: 0.6694
Epoch 10/75
39/39 [=====] - 0s 3ms/step - loss: 0.7742 - accuracy: 0.6612
Epoch 11/75
39/39 [=====] - 0s 2ms/step - loss: 0.7671 - accuracy: 0.6726
Epoch 12/75
39/39 [=====] - 0s 3ms/step - loss: 0.7647 - accuracy: 0.6694
Epoch 13/75
39/39 [=====] - 0s 3ms/step - loss: 0.7588 - accuracy: 0.6726
Epoch 14/75
39/39 [=====] - 0s 3ms/step - loss: 0.7570 - accuracy: 0.6629
Epoch 15/75
39/39 [=====] - 0s 3ms/step - loss: 0.7494 - accuracy: 0.6710
Epoch 16/75
39/39 [=====] - 0s 3ms/step - loss: 0.7522 - accuracy: 0.6726
Epoch 17/75
39/39 [=====] - 0s 4ms/step - loss: 0.7468 - accuracy: 0.6759
Epoch 18/75
39/39 [=====] - 0s 3ms/step - loss: 0.7446 - accuracy: 0.6726
Epoch 19/75
39/39 [=====] - 0s 3ms/step - loss: 0.7408 - accuracy: 0.6710
Epoch 20/75
39/39 [=====] - 0s 3ms/step - loss: 0.7414 - accuracy: 0.6661
Epoch 21/75
39/39 [=====] - 0s 3ms/step - loss: 0.7384 - accuracy: 0.6792
Epoch 22/75
39/39 [=====] - 0s 2ms/step - loss: 0.7339 - accuracy: 0.6710
Epoch 23/75
39/39 [=====] - 0s 3ms/step - loss: 0.7326 - accuracy: 0.6775
Epoch 24/75
39/39 [=====] - 0s 3ms/step - loss: 0.7312 - accuracy: 0.6792
Epoch 25/75
39/39 [=====] - 0s 2ms/step - loss: 0.7273 - accuracy: 0.6775
Epoch 26/75
39/39 [=====] - 0s 2ms/step - loss: 0.7257 - accuracy: 0.6808
Epoch 27/75
39/39 [=====] - 0s 3ms/step - loss: 0.7232 - accuracy: 0.6743
Epoch 28/75
39/39 [=====] - 0s 3ms/step - loss: 0.7221 - accuracy: 0.6743
Epoch 29/75
39/39 [=====] - 0s 2ms/step - loss: 0.7209 - accuracy: 0.6726
Epoch 30/75
39/39 [=====] - 0s 2ms/step - loss: 0.7182 - accuracy: 0.6726
Epoch 31/75
39/39 [=====] - 0s 3ms/step - loss: 0.7106 - accuracy: 0.6857
Epoch 32/75
39/39 [=====] - 0s 2ms/step - loss: 0.7139 - accuracy: 0.6840
Epoch 33/75
39/39 [=====] - 0s 4ms/step - loss: 0.7126 - accuracy: 0.6840
Epoch 34/75
39/39 [=====] - 0s 2ms/step - loss: 0.7033 - accuracy: 0.6775
Epoch 35/75
39/39 [=====] - 0s 3ms/step - loss: 0.7011 - accuracy: 0.6743
Epoch 36/75
39/39 [=====] - 0s 3ms/step - loss: 0.6983 - accuracy: 0.6808
Epoch 37/75
39/39 [=====] - 0s 2ms/step - loss: 0.6992 - accuracy: 0.6759
Epoch 38/75
39/39 [=====] - 0s 2ms/step - loss: 0.6957 - accuracy: 0.6840
Epoch 39/75
39/39 [=====] - 0s 3ms/step - loss: 0.6944 - accuracy: 0.6840
Epoch 40/75
39/39 [=====] - 0s 2ms/step - loss: 0.6863 - accuracy: 0.6743
Epoch 41/75
39/39 [=====] - 0s 3ms/step - loss: 0.6902 - accuracy: 0.6840
Epoch 42/75
39/39 [=====] - 0s 2ms/step - loss: 0.6913 - accuracy: 0.6694
Epoch 43/75
39/39 [=====] - 0s 3ms/step - loss: 0.6856 - accuracy: 0.6857
Epoch 44/75
39/39 [=====] - 0s 3ms/step - loss: 0.6817 - accuracy: 0.6873
Epoch 45/75
39/39 [=====] - 0s 3ms/step - loss: 0.6779 - accuracy: 0.6759
Epoch 46/75
39/39 [=====] - 0s 4ms/step - loss: 0.6832 - accuracy: 0.6873
Epoch 47/75
39/39 [=====] - 0s 4ms/step - loss: 0.6773 - accuracy: 0.6792
Epoch 48/75
39/39 [=====] - 0s 3ms/step - loss: 0.6777 - accuracy: 0.6873
Epoch 49/75
39/39 [=====] - 0s 3ms/step - loss: 0.6742 - accuracy: 0.6694

Epoch 50/75
39/39 [=====] - 0s 2ms/step - loss: 0.6705 - accuracy: 0.6889
Epoch 51/75
39/39 [=====] - 0s 3ms/step - loss: 0.6713 - accuracy: 0.6873
Epoch 52/75
39/39 [=====] - 0s 3ms/step - loss: 0.6671 - accuracy: 0.6873
Epoch 53/75
39/39 [=====] - 0s 3ms/step - loss: 0.6673 - accuracy: 0.6889
Epoch 54/75
39/39 [=====] - 0s 3ms/step - loss: 0.6685 - accuracy: 0.6759
Epoch 55/75
39/39 [=====] - 0s 3ms/step - loss: 0.6628 - accuracy: 0.6922
Epoch 56/75
39/39 [=====] - 0s 2ms/step - loss: 0.6640 - accuracy: 0.6808
Epoch 57/75
39/39 [=====] - 0s 2ms/step - loss: 0.6629 - accuracy: 0.6873
Epoch 58/75
39/39 [=====] - 0s 2ms/step - loss: 0.6609 - accuracy: 0.6889
Epoch 59/75
39/39 [=====] - 0s 4ms/step - loss: 0.6648 - accuracy: 0.6759
Epoch 60/75
39/39 [=====] - 0s 3ms/step - loss: 0.6603 - accuracy: 0.6873
Epoch 61/75
39/39 [=====] - 0s 4ms/step - loss: 0.6536 - accuracy: 0.6889
Epoch 62/75
39/39 [=====] - 0s 3ms/step - loss: 0.6568 - accuracy: 0.6808
Epoch 63/75
39/39 [=====] - 0s 3ms/step - loss: 0.6516 - accuracy: 0.6775
Epoch 64/75
39/39 [=====] - 0s 3ms/step - loss: 0.6528 - accuracy: 0.6873
Epoch 65/75
39/39 [=====] - 0s 2ms/step - loss: 0.6518 - accuracy: 0.6922
Epoch 66/75
39/39 [=====] - 0s 2ms/step - loss: 0.6575 - accuracy: 0.6808
Epoch 67/75
39/39 [=====] - 0s 1ms/step - loss: 0.6460 - accuracy: 0.6873
Epoch 68/75
39/39 [=====] - 0s 2ms/step - loss: 0.6545 - accuracy: 0.6808
Epoch 69/75
39/39 [=====] - 0s 2ms/step - loss: 0.6475 - accuracy: 0.6954
Epoch 70/75
39/39 [=====] - 0s 4ms/step - loss: 0.6438 - accuracy: 0.6808
Epoch 71/75
39/39 [=====] - 0s 3ms/step - loss: 0.6505 - accuracy: 0.6775
Epoch 72/75
39/39 [=====] - 0s 4ms/step - loss: 0.6431 - accuracy: 0.6987
Epoch 73/75
39/39 [=====] - 0s 3ms/step - loss: 0.6440 - accuracy: 0.6889
Epoch 74/75
39/39 [=====] - 0s 3ms/step - loss: 0.6502 - accuracy: 0.6840
Epoch 75/75
39/39 [=====] - 0s 4ms/step - loss: 0.6375 - accuracy: 0.6873
10/10 [=====] - 0s 1ms/step - loss: 0.6279 - accuracy: 0.6883
Epoch 1/75
39/39 [=====] - 0s 1ms/step - loss: 1.0521 - accuracy: 0.5333
Epoch 2/75
39/39 [=====] - 0s 2ms/step - loss: 0.8295 - accuracy: 0.6244
Epoch 3/75
39/39 [=====] - 0s 2ms/step - loss: 0.8182 - accuracy: 0.6276
Epoch 4/75
39/39 [=====] - 0s 3ms/step - loss: 0.8107 - accuracy: 0.6276
Epoch 5/75
39/39 [=====] - 0s 3ms/step - loss: 0.8012 - accuracy: 0.6276
Epoch 6/75
39/39 [=====] - 0s 2ms/step - loss: 0.7934 - accuracy: 0.6276
Epoch 7/75
39/39 [=====] - 0s 3ms/step - loss: 0.7878 - accuracy: 0.6407
Epoch 8/75
39/39 [=====] - 0s 2ms/step - loss: 0.7804 - accuracy: 0.6439
Epoch 9/75
39/39 [=====] - 0s 2ms/step - loss: 0.7654 - accuracy: 0.6520
Epoch 10/75
39/39 [=====] - 0s 2ms/step - loss: 0.7620 - accuracy: 0.6585
Epoch 11/75
39/39 [=====] - 0s 1ms/step - loss: 0.7562 - accuracy: 0.6667
Epoch 12/75
39/39 [=====] - 0s 2ms/step - loss: 0.7552 - accuracy: 0.6732
Epoch 13/75
39/39 [=====] - 0s 3ms/step - loss: 0.7584 - accuracy: 0.6504
Epoch 14/75
39/39 [=====] - 0s 3ms/step - loss: 0.7455 - accuracy: 0.6618
Epoch 15/75

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39/39 [=====] - 0s 2ms/step - loss: 0.7476 - accuracy: 0.6650
Epoch 16/75
39/39 [=====] - 0s 2ms/step - loss: 0.7504 - accuracy: 0.6667
Epoch 17/75
39/39 [=====] - 0s 2ms/step - loss: 0.7421 - accuracy: 0.6650
Epoch 18/75
39/39 [=====] - 0s 2ms/step - loss: 0.7404 - accuracy: 0.6569
Epoch 19/75
39/39 [=====] - 0s 2ms/step - loss: 0.7398 - accuracy: 0.6504
Epoch 20/75
39/39 [=====] - 0s 2ms/step - loss: 0.7378 - accuracy: 0.6472
Epoch 21/75
39/39 [=====] - 0s 2ms/step - loss: 0.7266 - accuracy: 0.6862
Epoch 22/75
39/39 [=====] - 0s 3ms/step - loss: 0.7345 - accuracy: 0.6341
Epoch 23/75
39/39 [=====] - 0s 2ms/step - loss: 0.7232 - accuracy: 0.6699
Epoch 24/75
39/39 [=====] - 0s 3ms/step - loss: 0.7229 - accuracy: 0.6537
Epoch 25/75
39/39 [=====] - 0s 2ms/step - loss: 0.7190 - accuracy: 0.6439
Epoch 26/75
39/39 [=====] - 0s 2ms/step - loss: 0.7232 - accuracy: 0.6569
Epoch 27/75
39/39 [=====] - 0s 2ms/step - loss: 0.7214 - accuracy: 0.6504
Epoch 28/75
39/39 [=====] - 0s 2ms/step - loss: 0.7216 - accuracy: 0.6553
Epoch 29/75
39/39 [=====] - 0s 2ms/step - loss: 0.7139 - accuracy: 0.6520
Epoch 30/75
39/39 [=====] - 0s 2ms/step - loss: 0.7138 - accuracy: 0.6569
Epoch 31/75
39/39 [=====] - 0s 2ms/step - loss: 0.7095 - accuracy: 0.6894
Epoch 32/75
39/39 [=====] - 0s 1ms/step - loss: 0.7057 - accuracy: 0.6683
Epoch 33/75
39/39 [=====] - 0s 2ms/step - loss: 0.7067 - accuracy: 0.6602
Epoch 34/75
39/39 [=====] - 0s 3ms/step - loss: 0.7131 - accuracy: 0.6455
Epoch 35/75
39/39 [=====] - 0s 3ms/step - loss: 0.6979 - accuracy: 0.6764
Epoch 36/75
39/39 [=====] - 0s 2ms/step - loss: 0.7021 - accuracy: 0.6569
Epoch 37/75
39/39 [=====] - 0s 2ms/step - loss: 0.6979 - accuracy: 0.6553
Epoch 38/75
39/39 [=====] - 0s 3ms/step - loss: 0.7064 - accuracy: 0.6585
Epoch 39/75
39/39 [=====] - 0s 2ms/step - loss: 0.6932 - accuracy: 0.6602
Epoch 40/75
39/39 [=====] - 0s 3ms/step - loss: 0.6913 - accuracy: 0.6699
Epoch 41/75
39/39 [=====] - 0s 2ms/step - loss: 0.7020 - accuracy: 0.6358
Epoch 42/75
39/39 [=====] - 0s 3ms/step - loss: 0.6931 - accuracy: 0.6634
Epoch 43/75
39/39 [=====] - 0s 3ms/step - loss: 0.6858 - accuracy: 0.6683
Epoch 44/75
39/39 [=====] - 0s 3ms/step - loss: 0.6924 - accuracy: 0.6764
Epoch 45/75
39/39 [=====] - 0s 3ms/step - loss: 0.6864 - accuracy: 0.6569
Epoch 46/75
39/39 [=====] - 0s 2ms/step - loss: 0.6870 - accuracy: 0.6667
Epoch 47/75
39/39 [=====] - 0s 3ms/step - loss: 0.6848 - accuracy: 0.6618
Epoch 48/75
39/39 [=====] - 0s 3ms/step - loss: 0.6871 - accuracy: 0.6829
Epoch 49/75
39/39 [=====] - 0s 3ms/step - loss: 0.6750 - accuracy: 0.6715
Epoch 50/75
39/39 [=====] - 0s 3ms/step - loss: 0.6817 - accuracy: 0.6748
Epoch 51/75
39/39 [=====] - 0s 2ms/step - loss: 0.6798 - accuracy: 0.6813
Epoch 52/75
39/39 [=====] - 0s 3ms/step - loss: 0.6784 - accuracy: 0.6699
Epoch 53/75
39/39 [=====] - 0s 2ms/step - loss: 0.6791 - accuracy: 0.6699
Epoch 54/75
39/39 [=====] - 0s 3ms/step - loss: 0.6681 - accuracy: 0.6813
Epoch 55/75
39/39 [=====] - 0s 2ms/step - loss: 0.6690 - accuracy: 0.6667
Epoch 56/75
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39/39 [=====] - 0s 2ms/step - loss: 0.6605 - accuracy: 0.6699
Epoch 57/75
39/39 [=====] - 0s 2ms/step - loss: 0.6658 - accuracy: 0.6683
Epoch 58/75
39/39 [=====] - 0s 2ms/step - loss: 0.6812 - accuracy: 0.6602
Epoch 59/75
39/39 [=====] - 0s 2ms/step - loss: 0.6626 - accuracy: 0.6911
Epoch 60/75
39/39 [=====] - 0s 2ms/step - loss: 0.6667 - accuracy: 0.6585
Epoch 61/75
39/39 [=====] - 0s 2ms/step - loss: 0.6614 - accuracy: 0.6650
Epoch 62/75
39/39 [=====] - 0s 2ms/step - loss: 0.6583 - accuracy: 0.6699
Epoch 63/75
39/39 [=====] - 0s 2ms/step - loss: 0.6668 - accuracy: 0.6569
Epoch 64/75
39/39 [=====] - 0s 2ms/step - loss: 0.6577 - accuracy: 0.6894
Epoch 65/75
39/39 [=====] - 0s 2ms/step - loss: 0.6616 - accuracy: 0.6715
Epoch 66/75
39/39 [=====] - 0s 2ms/step - loss: 0.6649 - accuracy: 0.6488
Epoch 67/75
39/39 [=====] - 0s 2ms/step - loss: 0.6652 - accuracy: 0.6780
Epoch 68/75
39/39 [=====] - 0s 2ms/step - loss: 0.6523 - accuracy: 0.6780
Epoch 69/75
39/39 [=====] - 0s 3ms/step - loss: 0.6474 - accuracy: 0.6813
Epoch 70/75
39/39 [=====] - 0s 2ms/step - loss: 0.6571 - accuracy: 0.6585
Epoch 71/75
39/39 [=====] - 0s 2ms/step - loss: 0.6530 - accuracy: 0.6748
Epoch 72/75
39/39 [=====] - 0s 2ms/step - loss: 0.6536 - accuracy: 0.6634
Epoch 73/75
39/39 [=====] - 0s 3ms/step - loss: 0.6536 - accuracy: 0.6846
Epoch 74/75
39/39 [=====] - 0s 2ms/step - loss: 0.6494 - accuracy: 0.6667
Epoch 75/75
39/39 [=====] - 0s 2ms/step - loss: 0.6549 - accuracy: 0.6715
10/10 [=====] - 0s 1ms/step - loss: 0.5465 - accuracy: 0.7778
Epoch 1/75
39/39 [=====] - 0s 2ms/step - loss: 2.2812 - accuracy: 0.6000
Epoch 2/75
39/39 [=====] - 0s 3ms/step - loss: 0.8594 - accuracy: 0.6520
Epoch 3/75
39/39 [=====] - 0s 3ms/step - loss: 0.8228 - accuracy: 0.6520
Epoch 4/75
39/39 [=====] - 0s 3ms/step - loss: 0.7970 - accuracy: 0.6520
Epoch 5/75
39/39 [=====] - 0s 2ms/step - loss: 0.7688 - accuracy: 0.6520
Epoch 6/75
39/39 [=====] - 0s 3ms/step - loss: 0.7695 - accuracy: 0.6520
Epoch 7/75
39/39 [=====] - 0s 2ms/step - loss: 0.7633 - accuracy: 0.6520
Epoch 8/75
39/39 [=====] - 0s 2ms/step - loss: 0.7570 - accuracy: 0.6520
Epoch 9/75
39/39 [=====] - 0s 3ms/step - loss: 0.7524 - accuracy: 0.6520
Epoch 10/75
39/39 [=====] - 0s 4ms/step - loss: 0.7524 - accuracy: 0.6520
Epoch 11/75
39/39 [=====] - 0s 3ms/step - loss: 0.7468 - accuracy: 0.6520
Epoch 12/75
39/39 [=====] - 0s 3ms/step - loss: 0.7451 - accuracy: 0.6520
Epoch 13/75
39/39 [=====] - 0s 3ms/step - loss: 0.7447 - accuracy: 0.6520
Epoch 14/75
39/39 [=====] - 0s 2ms/step - loss: 0.7380 - accuracy: 0.6520
Epoch 15/75
39/39 [=====] - 0s 3ms/step - loss: 0.7371 - accuracy: 0.6520
Epoch 16/75
39/39 [=====] - 0s 2ms/step - loss: 0.7366 - accuracy: 0.6520
Epoch 17/75
39/39 [=====] - 0s 3ms/step - loss: 0.7317 - accuracy: 0.6520
Epoch 18/75
39/39 [=====] - 0s 2ms/step - loss: 0.7348 - accuracy: 0.6520
Epoch 19/75
39/39 [=====] - 0s 2ms/step - loss: 0.7319 - accuracy: 0.6520
Epoch 20/75
39/39 [=====] - 0s 3ms/step - loss: 0.7262 - accuracy: 0.6520
Epoch 21/75
39/39 [=====] - 0s 3ms/step - loss: 0.7255 - accuracy: 0.6520
```



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Epoch 22/75
39/39 [=====] - 0s 3ms/step - loss: 0.7262 - accuracy: 0.6520
Epoch 23/75
39/39 [=====] - 0s 3ms/step - loss: 0.7248 - accuracy: 0.6520
Epoch 24/75
39/39 [=====] - 0s 3ms/step - loss: 0.7144 - accuracy: 0.6520
Epoch 25/75
39/39 [=====] - 0s 3ms/step - loss: 0.7209 - accuracy: 0.6520
Epoch 26/75
39/39 [=====] - 0s 3ms/step - loss: 0.7240 - accuracy: 0.6520
Epoch 27/75
39/39 [=====] - 0s 2ms/step - loss: 0.7131 - accuracy: 0.6520
Epoch 28/75
39/39 [=====] - 0s 2ms/step - loss: 0.7139 - accuracy: 0.6520
Epoch 29/75
39/39 [=====] - 0s 2ms/step - loss: 0.7081 - accuracy: 0.6520
Epoch 30/75
39/39 [=====] - 0s 2ms/step - loss: 0.7083 - accuracy: 0.6520
Epoch 31/75
39/39 [=====] - 0s 3ms/step - loss: 0.7063 - accuracy: 0.6520
Epoch 32/75
39/39 [=====] - 0s 2ms/step - loss: 0.7023 - accuracy: 0.6520
Epoch 33/75
39/39 [=====] - 0s 2ms/step - loss: 0.7036 - accuracy: 0.6520
Epoch 34/75
39/39 [=====] - 0s 2ms/step - loss: 0.7077 - accuracy: 0.6520
Epoch 35/75
39/39 [=====] - 0s 2ms/step - loss: 0.7060 - accuracy: 0.6520
Epoch 36/75
39/39 [=====] - 0s 2ms/step - loss: 0.7022 - accuracy: 0.6520
Epoch 37/75
39/39 [=====] - 0s 2ms/step - loss: 0.7092 - accuracy: 0.6520
Epoch 38/75
39/39 [=====] - 0s 2ms/step - loss: 0.6962 - accuracy: 0.6520
Epoch 39/75
39/39 [=====] - 0s 3ms/step - loss: 0.6974 - accuracy: 0.6520
Epoch 40/75
39/39 [=====] - 0s 2ms/step - loss: 0.6921 - accuracy: 0.6520
Epoch 41/75
39/39 [=====] - 0s 2ms/step - loss: 0.6926 - accuracy: 0.6520
Epoch 42/75
39/39 [=====] - 0s 2ms/step - loss: 0.6911 - accuracy: 0.6520
Epoch 43/75
39/39 [=====] - 0s 3ms/step - loss: 0.6946 - accuracy: 0.6520
Epoch 44/75
39/39 [=====] - 0s 5ms/step - loss: 0.6895 - accuracy: 0.6520
Epoch 45/75
39/39 [=====] - 0s 4ms/step - loss: 0.6844 - accuracy: 0.6520
Epoch 46/75
39/39 [=====] - 0s 4ms/step - loss: 0.6837 - accuracy: 0.6520
Epoch 47/75
39/39 [=====] - 0s 2ms/step - loss: 0.6846 - accuracy: 0.6520
Epoch 48/75
39/39 [=====] - 0s 2ms/step - loss: 0.6908 - accuracy: 0.6520
Epoch 49/75
39/39 [=====] - 0s 3ms/step - loss: 0.6788 - accuracy: 0.6520
Epoch 50/75
39/39 [=====] - 0s 2ms/step - loss: 0.6826 - accuracy: 0.6520
Epoch 51/75
39/39 [=====] - 0s 2ms/step - loss: 0.6835 - accuracy: 0.6520
Epoch 52/75
39/39 [=====] - 0s 3ms/step - loss: 0.6768 - accuracy: 0.6520
Epoch 53/75
39/39 [=====] - 0s 3ms/step - loss: 0.6798 - accuracy: 0.6520
Epoch 54/75
39/39 [=====] - 0s 3ms/step - loss: 0.6797 - accuracy: 0.6520
Epoch 55/75
39/39 [=====] - 0s 2ms/step - loss: 0.6767 - accuracy: 0.6520
Epoch 56/75
39/39 [=====] - 0s 3ms/step - loss: 0.6818 - accuracy: 0.6520
Epoch 57/75
39/39 [=====] - 0s 2ms/step - loss: 0.6711 - accuracy: 0.6520
Epoch 58/75
39/39 [=====] - 0s 2ms/step - loss: 0.6694 - accuracy: 0.6520
Epoch 59/75
39/39 [=====] - 0s 3ms/step - loss: 0.6727 - accuracy: 0.6520
Epoch 60/75
39/39 [=====] - 0s 2ms/step - loss: 0.6717 - accuracy: 0.6520
Epoch 61/75
39/39 [=====] - 0s 3ms/step - loss: 0.6740 - accuracy: 0.6520
Epoch 62/75
39/39 [=====] - 0s 2ms/step - loss: 0.6637 - accuracy: 0.6520
```

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Epoch 63/75
39/39 [=====] - 0s 2ms/step - loss: 0.6678 - accuracy: 0.6520
Epoch 64/75
39/39 [=====] - 0s 2ms/step - loss: 0.6722 - accuracy: 0.6520
Epoch 65/75
39/39 [=====] - 0s 2ms/step - loss: 0.6647 - accuracy: 0.6520
Epoch 66/75
39/39 [=====] - 0s 2ms/step - loss: 0.6636 - accuracy: 0.6520
Epoch 67/75
39/39 [=====] - 0s 2ms/step - loss: 0.6659 - accuracy: 0.6520
Epoch 68/75
39/39 [=====] - 0s 2ms/step - loss: 0.6629 - accuracy: 0.6520
Epoch 69/75
39/39 [=====] - 0s 2ms/step - loss: 0.6573 - accuracy: 0.6520
Epoch 70/75
39/39 [=====] - 0s 2ms/step - loss: 0.6680 - accuracy: 0.6520
Epoch 71/75
39/39 [=====] - 0s 2ms/step - loss: 0.6663 - accuracy: 0.6520
Epoch 72/75
39/39 [=====] - 0s 2ms/step - loss: 0.6645 - accuracy: 0.6520
Epoch 73/75
39/39 [=====] - 0s 2ms/step - loss: 0.6580 - accuracy: 0.6520
Epoch 74/75
39/39 [=====] - 0s 2ms/step - loss: 0.6593 - accuracy: 0.6520
Epoch 75/75
39/39 [=====] - 0s 2ms/step - loss: 0.6523 - accuracy: 0.6520
10/10 [=====] - 0s 1ms/step - loss: 0.6442 - accuracy: 0.6471
Epoch 1/75
39/39 [=====] - 0s 1ms/step - loss: 2.8519 - accuracy: 0.6270
Epoch 2/75
39/39 [=====] - 0s 1ms/step - loss: 1.9271 - accuracy: 0.6580
Epoch 3/75
39/39 [=====] - 0s 2ms/step - loss: 1.7279 - accuracy: 0.6726
Epoch 4/75
39/39 [=====] - 0s 2ms/step - loss: 1.5659 - accuracy: 0.6645
Epoch 5/75
39/39 [=====] - 0s 3ms/step - loss: 1.4180 - accuracy: 0.6710
Epoch 6/75
39/39 [=====] - 0s 2ms/step - loss: 1.3063 - accuracy: 0.6678
Epoch 7/75
39/39 [=====] - 0s 2ms/step - loss: 1.2024 - accuracy: 0.6808
Epoch 8/75
39/39 [=====] - 0s 2ms/step - loss: 1.1096 - accuracy: 0.6824
Epoch 9/75
39/39 [=====] - 0s 2ms/step - loss: 1.0472 - accuracy: 0.6661
Epoch 10/75
39/39 [=====] - 0s 2ms/step - loss: 0.9960 - accuracy: 0.6759
Epoch 11/75
39/39 [=====] - 0s 2ms/step - loss: 0.9414 - accuracy: 0.6645
Epoch 12/75
39/39 [=====] - 0s 3ms/step - loss: 0.8923 - accuracy: 0.6710
Epoch 13/75
39/39 [=====] - 0s 3ms/step - loss: 0.8552 - accuracy: 0.6678
Epoch 14/75
39/39 [=====] - 0s 2ms/step - loss: 0.8290 - accuracy: 0.6580
Epoch 15/75
39/39 [=====] - 0s 3ms/step - loss: 0.7947 - accuracy: 0.6726
Epoch 16/75
39/39 [=====] - 0s 3ms/step - loss: 0.7778 - accuracy: 0.6743
Epoch 17/75
39/39 [=====] - 0s 4ms/step - loss: 0.7611 - accuracy: 0.6547
Epoch 18/75
39/39 [=====] - 0s 4ms/step - loss: 0.7501 - accuracy: 0.6547
Epoch 19/75
39/39 [=====] - 0s 3ms/step - loss: 0.7130 - accuracy: 0.6759
Epoch 20/75
39/39 [=====] - 0s 3ms/step - loss: 0.7039 - accuracy: 0.6694
Epoch 21/75
39/39 [=====] - 0s 2ms/step - loss: 0.7007 - accuracy: 0.6482
Epoch 22/75
39/39 [=====] - 0s 3ms/step - loss: 0.6779 - accuracy: 0.6710
Epoch 23/75
39/39 [=====] - 0s 3ms/step - loss: 0.6810 - accuracy: 0.6824
Epoch 24/75
39/39 [=====] - 0s 3ms/step - loss: 0.6630 - accuracy: 0.6792
Epoch 25/75
39/39 [=====] - 0s 2ms/step - loss: 0.6586 - accuracy: 0.6889
Epoch 26/75
39/39 [=====] - 0s 3ms/step - loss: 0.6635 - accuracy: 0.6743
Epoch 27/75
39/39 [=====] - 0s 2ms/step - loss: 0.6566 - accuracy: 0.6743
Epoch 28/75
```

39/39 [=====] - 0s 3ms/step - loss: 0.6429 - accuracy: 0.6775
Epoch 29/75
39/39 [=====] - 0s 2ms/step - loss: 0.6575 - accuracy: 0.6678
Epoch 30/75
39/39 [=====] - 0s 2ms/step - loss: 0.6453 - accuracy: 0.6954
Epoch 31/75
39/39 [=====] - 0s 3ms/step - loss: 0.6384 - accuracy: 0.6873
Epoch 32/75
39/39 [=====] - 0s 3ms/step - loss: 0.6446 - accuracy: 0.6792
Epoch 33/75
39/39 [=====] - 0s 4ms/step - loss: 0.6364 - accuracy: 0.6922
Epoch 34/75
39/39 [=====] - 0s 4ms/step - loss: 0.6371 - accuracy: 0.6808
Epoch 35/75
39/39 [=====] - 0s 3ms/step - loss: 0.6325 - accuracy: 0.6743
Epoch 36/75
39/39 [=====] - 0s 3ms/step - loss: 0.6315 - accuracy: 0.6743
Epoch 37/75
39/39 [=====] - 0s 2ms/step - loss: 0.6377 - accuracy: 0.6808
Epoch 38/75
39/39 [=====] - 0s 3ms/step - loss: 0.6252 - accuracy: 0.6775
Epoch 39/75
39/39 [=====] - 0s 2ms/step - loss: 0.6238 - accuracy: 0.6889
Epoch 40/75
39/39 [=====] - 0s 2ms/step - loss: 0.6284 - accuracy: 0.6906
Epoch 41/75
39/39 [=====] - 0s 2ms/step - loss: 0.6278 - accuracy: 0.6726
Epoch 42/75
39/39 [=====] - 0s 2ms/step - loss: 0.6210 - accuracy: 0.6824
Epoch 43/75
39/39 [=====] - 0s 2ms/step - loss: 0.6188 - accuracy: 0.7003
Epoch 44/75
39/39 [=====] - 0s 2ms/step - loss: 0.6360 - accuracy: 0.6857
Epoch 45/75
39/39 [=====] - 0s 2ms/step - loss: 0.6270 - accuracy: 0.6938
Epoch 46/75
39/39 [=====] - 0s 2ms/step - loss: 0.6098 - accuracy: 0.7003
Epoch 47/75
39/39 [=====] - 0s 2ms/step - loss: 0.6255 - accuracy: 0.6743
Epoch 48/75
39/39 [=====] - 0s 2ms/step - loss: 0.6281 - accuracy: 0.6938
Epoch 49/75
39/39 [=====] - 0s 2ms/step - loss: 0.6178 - accuracy: 0.6775
Epoch 50/75
39/39 [=====] - 0s 2ms/step - loss: 0.6205 - accuracy: 0.7020
Epoch 51/75
39/39 [=====] - 0s 2ms/step - loss: 0.6139 - accuracy: 0.6678
Epoch 52/75
39/39 [=====] - 0s 3ms/step - loss: 0.6226 - accuracy: 0.6759
Epoch 53/75
39/39 [=====] - 0s 2ms/step - loss: 0.6203 - accuracy: 0.6873
Epoch 54/75
39/39 [=====] - 0s 3ms/step - loss: 0.6126 - accuracy: 0.6889
Epoch 55/75
39/39 [=====] - 0s 3ms/step - loss: 0.6175 - accuracy: 0.6840
Epoch 56/75
39/39 [=====] - 0s 2ms/step - loss: 0.6191 - accuracy: 0.6906
Epoch 57/75
39/39 [=====] - 0s 3ms/step - loss: 0.6094 - accuracy: 0.7020
Epoch 58/75
39/39 [=====] - 0s 2ms/step - loss: 0.6183 - accuracy: 0.6792
Epoch 59/75
39/39 [=====] - 0s 2ms/step - loss: 0.6183 - accuracy: 0.6824
Epoch 60/75
39/39 [=====] - 0s 2ms/step - loss: 0.6183 - accuracy: 0.6726
Epoch 61/75
39/39 [=====] - 0s 2ms/step - loss: 0.6147 - accuracy: 0.6987
Epoch 62/75
39/39 [=====] - 0s 3ms/step - loss: 0.6111 - accuracy: 0.7068
Epoch 63/75
39/39 [=====] - 0s 2ms/step - loss: 0.6147 - accuracy: 0.6987
Epoch 64/75
39/39 [=====] - 0s 2ms/step - loss: 0.6121 - accuracy: 0.7085
Epoch 65/75
39/39 [=====] - 0s 2ms/step - loss: 0.6091 - accuracy: 0.6971
Epoch 66/75
39/39 [=====] - 0s 2ms/step - loss: 0.6114 - accuracy: 0.7085
Epoch 67/75
39/39 [=====] - 0s 2ms/step - loss: 0.6130 - accuracy: 0.6792
Epoch 68/75
39/39 [=====] - 0s 2ms/step - loss: 0.6076 - accuracy: 0.6710
Epoch 69/75

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39/39 [=====] - 0s 3ms/step - loss: 0.6104 - accuracy: 0.6938
Epoch 70/75
39/39 [=====] - 0s 3ms/step - loss: 0.6088 - accuracy: 0.7101
Epoch 71/75
39/39 [=====] - 0s 2ms/step - loss: 0.6043 - accuracy: 0.7036
Epoch 72/75
39/39 [=====] - 0s 2ms/step - loss: 0.6047 - accuracy: 0.6889
Epoch 73/75
39/39 [=====] - 0s 3ms/step - loss: 0.6108 - accuracy: 0.6987
Epoch 74/75
39/39 [=====] - 0s 3ms/step - loss: 0.6045 - accuracy: 0.6971
Epoch 75/75
39/39 [=====] - 0s 4ms/step - loss: 0.6102 - accuracy: 0.6922
10/10 [=====] - 0s 2ms/step - loss: 0.6304 - accuracy: 0.6623
Epoch 1/75
39/39 [=====] - 1s 2ms/step - loss: 2.6883 - accuracy: 0.6580
Epoch 2/75
39/39 [=====] - 0s 2ms/step - loss: 1.8822 - accuracy: 0.6678
Epoch 3/75
39/39 [=====] - 0s 3ms/step - loss: 1.7054 - accuracy: 0.6678
Epoch 4/75
39/39 [=====] - 0s 3ms/step - loss: 1.5494 - accuracy: 0.6678
Epoch 5/75
39/39 [=====] - 0s 3ms/step - loss: 1.4214 - accuracy: 0.6678
Epoch 6/75
39/39 [=====] - 0s 3ms/step - loss: 1.3030 - accuracy: 0.6678
Epoch 7/75
39/39 [=====] - 0s 3ms/step - loss: 1.2042 - accuracy: 0.6678
Epoch 8/75
39/39 [=====] - 0s 2ms/step - loss: 1.1228 - accuracy: 0.6678
Epoch 9/75
39/39 [=====] - 0s 3ms/step - loss: 1.0506 - accuracy: 0.6678
Epoch 10/75
39/39 [=====] - 0s 2ms/step - loss: 0.9856 - accuracy: 0.6678
Epoch 11/75
39/39 [=====] - 0s 2ms/step - loss: 0.9373 - accuracy: 0.6678
Epoch 12/75
39/39 [=====] - 0s 2ms/step - loss: 0.8903 - accuracy: 0.6678
Epoch 13/75
39/39 [=====] - 0s 2ms/step - loss: 0.8479 - accuracy: 0.6661
Epoch 14/75
39/39 [=====] - 0s 2ms/step - loss: 0.8217 - accuracy: 0.6661
Epoch 15/75
39/39 [=====] - 0s 2ms/step - loss: 0.7985 - accuracy: 0.6678
Epoch 16/75
39/39 [=====] - 0s 2ms/step - loss: 0.7698 - accuracy: 0.6694
Epoch 17/75
39/39 [=====] - 0s 2ms/step - loss: 0.7498 - accuracy: 0.6710
Epoch 18/75
39/39 [=====] - 0s 3ms/step - loss: 0.7294 - accuracy: 0.6678
Epoch 19/75
39/39 [=====] - 0s 3ms/step - loss: 0.7134 - accuracy: 0.6678
Epoch 20/75
39/39 [=====] - 0s 2ms/step - loss: 0.7113 - accuracy: 0.6629
Epoch 21/75
39/39 [=====] - 0s 3ms/step - loss: 0.6977 - accuracy: 0.6710
Epoch 22/75
39/39 [=====] - 0s 2ms/step - loss: 0.6812 - accuracy: 0.6678
Epoch 23/75
39/39 [=====] - 0s 2ms/step - loss: 0.6792 - accuracy: 0.6710
Epoch 24/75
39/39 [=====] - 0s 2ms/step - loss: 0.6712 - accuracy: 0.6710
Epoch 25/75
39/39 [=====] - 0s 2ms/step - loss: 0.6655 - accuracy: 0.6678
Epoch 26/75
39/39 [=====] - 0s 2ms/step - loss: 0.6599 - accuracy: 0.6678
Epoch 27/75
39/39 [=====] - 0s 2ms/step - loss: 0.6536 - accuracy: 0.6678
Epoch 28/75
39/39 [=====] - 0s 2ms/step - loss: 0.6498 - accuracy: 0.6710
Epoch 29/75
39/39 [=====] - 0s 2ms/step - loss: 0.6536 - accuracy: 0.6645
Epoch 30/75
39/39 [=====] - 0s 2ms/step - loss: 0.6424 - accuracy: 0.6596
Epoch 31/75
39/39 [=====] - 0s 2ms/step - loss: 0.6389 - accuracy: 0.6710
Epoch 32/75
39/39 [=====] - 0s 3ms/step - loss: 0.6388 - accuracy: 0.6759
Epoch 33/75
39/39 [=====] - 0s 2ms/step - loss: 0.6362 - accuracy: 0.6710
Epoch 34/75
39/39 [=====] - 0s 2ms/step - loss: 0.6339 - accuracy: 0.6694
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Epoch 35/75
39/39 [=====] - 0s 2ms/step - loss: 0.6364 - accuracy: 0.6857
Epoch 36/75
39/39 [=====] - 0s 3ms/step - loss: 0.6316 - accuracy: 0.6906
Epoch 37/75
39/39 [=====] - 0s 3ms/step - loss: 0.6296 - accuracy: 0.6971
Epoch 38/75
39/39 [=====] - 0s 2ms/step - loss: 0.6242 - accuracy: 0.7020
Epoch 39/75
39/39 [=====] - 0s 3ms/step - loss: 0.6272 - accuracy: 0.6954
Epoch 40/75
39/39 [=====] - 0s 2ms/step - loss: 0.6177 - accuracy: 0.6857
Epoch 41/75
39/39 [=====] - 0s 2ms/step - loss: 0.6259 - accuracy: 0.6906
Epoch 42/75
39/39 [=====] - 0s 2ms/step - loss: 0.6262 - accuracy: 0.6824
Epoch 43/75
39/39 [=====] - 0s 2ms/step - loss: 0.6182 - accuracy: 0.6857
Epoch 44/75
39/39 [=====] - 0s 2ms/step - loss: 0.6289 - accuracy: 0.6824
Epoch 45/75
39/39 [=====] - 0s 2ms/step - loss: 0.6211 - accuracy: 0.6889
Epoch 46/75
39/39 [=====] - 0s 3ms/step - loss: 0.6075 - accuracy: 0.7003
Epoch 47/75
39/39 [=====] - 0s 3ms/step - loss: 0.6215 - accuracy: 0.7020
Epoch 48/75
39/39 [=====] - 0s 4ms/step - loss: 0.6098 - accuracy: 0.7003
Epoch 49/75
39/39 [=====] - 0s 4ms/step - loss: 0.6268 - accuracy: 0.6954
Epoch 50/75
39/39 [=====] - 0s 3ms/step - loss: 0.6096 - accuracy: 0.7150
Epoch 51/75
39/39 [=====] - 0s 4ms/step - loss: 0.6168 - accuracy: 0.7134
Epoch 52/75
39/39 [=====] - 0s 4ms/step - loss: 0.6026 - accuracy: 0.7036
Epoch 53/75
39/39 [=====] - 0s 3ms/step - loss: 0.6164 - accuracy: 0.7085
Epoch 54/75
39/39 [=====] - 0s 2ms/step - loss: 0.6074 - accuracy: 0.7101
Epoch 55/75
39/39 [=====] - 0s 3ms/step - loss: 0.6130 - accuracy: 0.6824
Epoch 56/75
39/39 [=====] - 0s 2ms/step - loss: 0.6096 - accuracy: 0.6971
Epoch 57/75
39/39 [=====] - 0s 3ms/step - loss: 0.6193 - accuracy: 0.6987
Epoch 58/75
39/39 [=====] - 0s 2ms/step - loss: 0.6053 - accuracy: 0.7036
Epoch 59/75
39/39 [=====] - 0s 3ms/step - loss: 0.6165 - accuracy: 0.7068
Epoch 60/75
39/39 [=====] - 0s 3ms/step - loss: 0.5985 - accuracy: 0.7101
Epoch 61/75
39/39 [=====] - 0s 2ms/step - loss: 0.6057 - accuracy: 0.6906
Epoch 62/75
39/39 [=====] - 0s 2ms/step - loss: 0.6167 - accuracy: 0.6889
Epoch 63/75
39/39 [=====] - 0s 2ms/step - loss: 0.6012 - accuracy: 0.7068
Epoch 64/75
39/39 [=====] - 0s 2ms/step - loss: 0.6065 - accuracy: 0.7134
Epoch 65/75
39/39 [=====] - 0s 2ms/step - loss: 0.6123 - accuracy: 0.7052
Epoch 66/75
39/39 [=====] - 0s 3ms/step - loss: 0.6023 - accuracy: 0.7036
Epoch 67/75
39/39 [=====] - 0s 2ms/step - loss: 0.6103 - accuracy: 0.6922
Epoch 68/75
39/39 [=====] - 0s 3ms/step - loss: 0.6009 - accuracy: 0.7020
Epoch 69/75
39/39 [=====] - 0s 2ms/step - loss: 0.5979 - accuracy: 0.7215
Epoch 70/75
39/39 [=====] - 0s 3ms/step - loss: 0.6081 - accuracy: 0.6889
Epoch 71/75
39/39 [=====] - 0s 2ms/step - loss: 0.5972 - accuracy: 0.7085
Epoch 72/75
39/39 [=====] - 0s 2ms/step - loss: 0.5961 - accuracy: 0.7166
Epoch 73/75
39/39 [=====] - 0s 2ms/step - loss: 0.5972 - accuracy: 0.7117
Epoch 74/75
39/39 [=====] - 0s 2ms/step - loss: 0.5961 - accuracy: 0.7085
Epoch 75/75
39/39 [=====] - 0s 2ms/step - loss: 0.6083 - accuracy: 0.6938

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10/10 [=====] - 0s 1ms/step - loss: 0.6441 - accuracy: 0.6883
Epoch 1/75
39/39 [=====] - 0s 2ms/step - loss: 3.1916 - accuracy: 0.6336
Epoch 2/75
39/39 [=====] - 0s 2ms/step - loss: 1.9462 - accuracy: 0.6580
Epoch 3/75
39/39 [=====] - 0s 2ms/step - loss: 1.7485 - accuracy: 0.6580
Epoch 4/75
39/39 [=====] - 0s 2ms/step - loss: 1.5837 - accuracy: 0.6726
Epoch 5/75
39/39 [=====] - 0s 2ms/step - loss: 1.4432 - accuracy: 0.6645
Epoch 6/75
39/39 [=====] - 0s 3ms/step - loss: 1.3279 - accuracy: 0.6645
Epoch 7/75
39/39 [=====] - 0s 3ms/step - loss: 1.2243 - accuracy: 0.6710
Epoch 8/75
39/39 [=====] - 0s 4ms/step - loss: 1.1408 - accuracy: 0.6678
Epoch 9/75
39/39 [=====] - 0s 4ms/step - loss: 1.0674 - accuracy: 0.6661
Epoch 10/75
39/39 [=====] - 0s 4ms/step - loss: 1.0074 - accuracy: 0.6726
Epoch 11/75
39/39 [=====] - 0s 3ms/step - loss: 0.9572 - accuracy: 0.6645
Epoch 12/75
39/39 [=====] - 0s 3ms/step - loss: 0.9053 - accuracy: 0.6710
Epoch 13/75
39/39 [=====] - 0s 2ms/step - loss: 0.8717 - accuracy: 0.6564
Epoch 14/75
39/39 [=====] - 0s 2ms/step - loss: 0.8313 - accuracy: 0.6661
Epoch 15/75
39/39 [=====] - 0s 3ms/step - loss: 0.8026 - accuracy: 0.6726
Epoch 16/75
39/39 [=====] - 0s 2ms/step - loss: 0.7709 - accuracy: 0.6596
Epoch 17/75
39/39 [=====] - 0s 2ms/step - loss: 0.7492 - accuracy: 0.6645
Epoch 18/75
39/39 [=====] - 0s 2ms/step - loss: 0.7310 - accuracy: 0.6531
Epoch 19/75
39/39 [=====] - 0s 2ms/step - loss: 0.7153 - accuracy: 0.6661
Epoch 20/75
39/39 [=====] - 0s 2ms/step - loss: 0.7069 - accuracy: 0.6792
Epoch 21/75
39/39 [=====] - 0s 2ms/step - loss: 0.6958 - accuracy: 0.6645
Epoch 22/75
39/39 [=====] - 0s 2ms/step - loss: 0.6808 - accuracy: 0.6661
Epoch 23/75
39/39 [=====] - 0s 2ms/step - loss: 0.6691 - accuracy: 0.6678
Epoch 24/75
39/39 [=====] - 0s 2ms/step - loss: 0.6790 - accuracy: 0.6726
Epoch 25/75
39/39 [=====] - 0s 2ms/step - loss: 0.6619 - accuracy: 0.6840
Epoch 26/75
39/39 [=====] - 0s 3ms/step - loss: 0.6642 - accuracy: 0.6645
Epoch 27/75
39/39 [=====] - 0s 2ms/step - loss: 0.6563 - accuracy: 0.6759
Epoch 28/75
39/39 [=====] - 0s 2ms/step - loss: 0.6523 - accuracy: 0.6743
Epoch 29/75
39/39 [=====] - 0s 2ms/step - loss: 0.6472 - accuracy: 0.6612
Epoch 30/75
39/39 [=====] - 0s 2ms/step - loss: 0.6431 - accuracy: 0.6743
Epoch 31/75
39/39 [=====] - 0s 3ms/step - loss: 0.6440 - accuracy: 0.6889
Epoch 32/75
39/39 [=====] - 0s 2ms/step - loss: 0.6426 - accuracy: 0.6759
Epoch 33/75
39/39 [=====] - 0s 3ms/step - loss: 0.6358 - accuracy: 0.6857
Epoch 34/75
39/39 [=====] - 0s 3ms/step - loss: 0.6266 - accuracy: 0.6971
Epoch 35/75
39/39 [=====] - 0s 3ms/step - loss: 0.6366 - accuracy: 0.6775
Epoch 36/75
39/39 [=====] - 0s 2ms/step - loss: 0.6335 - accuracy: 0.6743
Epoch 37/75
39/39 [=====] - 0s 3ms/step - loss: 0.6354 - accuracy: 0.6906
Epoch 38/75
39/39 [=====] - 0s 2ms/step - loss: 0.6350 - accuracy: 0.6824
Epoch 39/75
39/39 [=====] - 0s 3ms/step - loss: 0.6349 - accuracy: 0.6629
Epoch 40/75
39/39 [=====] - 0s 2ms/step - loss: 0.6341 - accuracy: 0.6694
Epoch 41/75
```

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39/39 [=====] - 0s 3ms/step - loss: 0.6339 - accuracy: 0.6710
Epoch 42/75
39/39 [=====] - 0s 4ms/step - loss: 0.6319 - accuracy: 0.6824
Epoch 43/75
39/39 [=====] - 0s 3ms/step - loss: 0.6241 - accuracy: 0.6906
Epoch 44/75
39/39 [=====] - 0s 2ms/step - loss: 0.6363 - accuracy: 0.6661
Epoch 45/75
39/39 [=====] - 0s 3ms/step - loss: 0.6251 - accuracy: 0.6873
Epoch 46/75
39/39 [=====] - 0s 3ms/step - loss: 0.6244 - accuracy: 0.6775
Epoch 47/75
39/39 [=====] - 0s 3ms/step - loss: 0.6133 - accuracy: 0.6873
Epoch 48/75
39/39 [=====] - 0s 2ms/step - loss: 0.6273 - accuracy: 0.6710
Epoch 49/75
39/39 [=====] - 0s 2ms/step - loss: 0.6224 - accuracy: 0.6808
Epoch 50/75
39/39 [=====] - 0s 2ms/step - loss: 0.6252 - accuracy: 0.6840
Epoch 51/75
39/39 [=====] - 0s 2ms/step - loss: 0.6262 - accuracy: 0.6710
Epoch 52/75
39/39 [=====] - 0s 2ms/step - loss: 0.6217 - accuracy: 0.6792
Epoch 53/75
39/39 [=====] - 0s 2ms/step - loss: 0.6215 - accuracy: 0.6759
Epoch 54/75
39/39 [=====] - 0s 2ms/step - loss: 0.6112 - accuracy: 0.6873
Epoch 55/75
39/39 [=====] - 0s 2ms/step - loss: 0.6288 - accuracy: 0.6661
Epoch 56/75
39/39 [=====] - 0s 2ms/step - loss: 0.6139 - accuracy: 0.6873
Epoch 57/75
39/39 [=====] - 0s 2ms/step - loss: 0.6220 - accuracy: 0.6792
Epoch 58/75
39/39 [=====] - 0s 3ms/step - loss: 0.6133 - accuracy: 0.7036
Epoch 59/75
39/39 [=====] - 0s 3ms/step - loss: 0.6227 - accuracy: 0.6775
Epoch 60/75
39/39 [=====] - 0s 2ms/step - loss: 0.6088 - accuracy: 0.7052
Epoch 61/75
39/39 [=====] - 0s 2ms/step - loss: 0.6256 - accuracy: 0.6808
Epoch 62/75
39/39 [=====] - 0s 2ms/step - loss: 0.6122 - accuracy: 0.6987
Epoch 63/75
39/39 [=====] - 0s 2ms/step - loss: 0.6107 - accuracy: 0.6938
Epoch 64/75
39/39 [=====] - 0s 2ms/step - loss: 0.6100 - accuracy: 0.6954
Epoch 65/75
39/39 [=====] - 0s 2ms/step - loss: 0.6129 - accuracy: 0.7003
Epoch 66/75
39/39 [=====] - 0s 2ms/step - loss: 0.6196 - accuracy: 0.6954
Epoch 67/75
39/39 [=====] - 0s 2ms/step - loss: 0.6252 - accuracy: 0.6645
Epoch 68/75
39/39 [=====] - 0s 2ms/step - loss: 0.6161 - accuracy: 0.6922
Epoch 69/75
39/39 [=====] - 0s 2ms/step - loss: 0.6185 - accuracy: 0.6840
Epoch 70/75
39/39 [=====] - 0s 2ms/step - loss: 0.6041 - accuracy: 0.6775
Epoch 71/75
39/39 [=====] - 0s 3ms/step - loss: 0.6004 - accuracy: 0.7117
Epoch 72/75
39/39 [=====] - 0s 2ms/step - loss: 0.6187 - accuracy: 0.6889
Epoch 73/75
39/39 [=====] - 0s 2ms/step - loss: 0.6222 - accuracy: 0.6645
Epoch 74/75
39/39 [=====] - 0s 3ms/step - loss: 0.6137 - accuracy: 0.6906
Epoch 75/75
39/39 [=====] - 0s 2ms/step - loss: 0.6064 - accuracy: 0.6824
10/10 [=====] - 0s 2ms/step - loss: 0.6849 - accuracy: 0.6429
Epoch 1/75
39/39 [=====] - 0s 2ms/step - loss: 3.4741 - accuracy: 0.5431
Epoch 2/75
39/39 [=====] - 0s 3ms/step - loss: 1.9334 - accuracy: 0.6244
Epoch 3/75
39/39 [=====] - 0s 3ms/step - loss: 1.7456 - accuracy: 0.6309
Epoch 4/75
39/39 [=====] - 0s 3ms/step - loss: 1.5860 - accuracy: 0.6260
Epoch 5/75
39/39 [=====] - 0s 3ms/step - loss: 1.4372 - accuracy: 0.6520
Epoch 6/75
39/39 [=====] - 0s 3ms/step - loss: 1.3247 - accuracy: 0.6358
```

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Epoch 7/75
39/39 [=====] - 0s 3ms/step - loss: 1.2209 - accuracy: 0.6455
Epoch 8/75
39/39 [=====] - 0s 3ms/step - loss: 1.1341 - accuracy: 0.6455
Epoch 9/75
39/39 [=====] - 0s 2ms/step - loss: 1.0583 - accuracy: 0.6309
Epoch 10/75
39/39 [=====] - 0s 2ms/step - loss: 1.0039 - accuracy: 0.6455
Epoch 11/75
39/39 [=====] - 0s 2ms/step - loss: 0.9425 - accuracy: 0.6488
Epoch 12/75
39/39 [=====] - 0s 2ms/step - loss: 0.9045 - accuracy: 0.6439
Epoch 13/75
39/39 [=====] - 0s 2ms/step - loss: 0.8677 - accuracy: 0.6488
Epoch 14/75
39/39 [=====] - 0s 2ms/step - loss: 0.8346 - accuracy: 0.6472
Epoch 15/75
39/39 [=====] - 0s 2ms/step - loss: 0.8033 - accuracy: 0.6390
Epoch 16/75
39/39 [=====] - 0s 3ms/step - loss: 0.7858 - accuracy: 0.6455
Epoch 17/75
39/39 [=====] - 0s 2ms/step - loss: 0.7654 - accuracy: 0.6488
Epoch 18/75
39/39 [=====] - 0s 2ms/step - loss: 0.7448 - accuracy: 0.6488
Epoch 19/75
39/39 [=====] - 0s 3ms/step - loss: 0.7360 - accuracy: 0.6504
Epoch 20/75
39/39 [=====] - 0s 2ms/step - loss: 0.7286 - accuracy: 0.6455
Epoch 21/75
39/39 [=====] - 0s 2ms/step - loss: 0.7045 - accuracy: 0.6407
Epoch 22/75
39/39 [=====] - 0s 3ms/step - loss: 0.7045 - accuracy: 0.6341
Epoch 23/75
39/39 [=====] - 0s 2ms/step - loss: 0.7032 - accuracy: 0.6407
Epoch 24/75
39/39 [=====] - 0s 3ms/step - loss: 0.6855 - accuracy: 0.6455
Epoch 25/75
39/39 [=====] - 0s 3ms/step - loss: 0.6938 - accuracy: 0.6488
Epoch 26/75
39/39 [=====] - 0s 3ms/step - loss: 0.6801 - accuracy: 0.6650
Epoch 27/75
39/39 [=====] - 0s 2ms/step - loss: 0.6796 - accuracy: 0.6520
Epoch 28/75
39/39 [=====] - 0s 1ms/step - loss: 0.6656 - accuracy: 0.6764
Epoch 29/75
39/39 [=====] - 0s 3ms/step - loss: 0.6650 - accuracy: 0.6504
Epoch 30/75
39/39 [=====] - 0s 2ms/step - loss: 0.6589 - accuracy: 0.6650
Epoch 31/75
39/39 [=====] - 0s 2ms/step - loss: 0.6629 - accuracy: 0.6537
Epoch 32/75
39/39 [=====] - 0s 2ms/step - loss: 0.6476 - accuracy: 0.6829
Epoch 33/75
39/39 [=====] - 0s 3ms/step - loss: 0.6636 - accuracy: 0.6488
Epoch 34/75
39/39 [=====] - 0s 2ms/step - loss: 0.6563 - accuracy: 0.6537
Epoch 35/75
39/39 [=====] - 0s 2ms/step - loss: 0.6548 - accuracy: 0.6569
Epoch 36/75
39/39 [=====] - 0s 2ms/step - loss: 0.6460 - accuracy: 0.6553
Epoch 37/75
39/39 [=====] - 0s 2ms/step - loss: 0.6473 - accuracy: 0.6634
Epoch 38/75
39/39 [=====] - 0s 2ms/step - loss: 0.6429 - accuracy: 0.6634
Epoch 39/75
39/39 [=====] - 0s 3ms/step - loss: 0.6398 - accuracy: 0.6618
Epoch 40/75
39/39 [=====] - 0s 2ms/step - loss: 0.6551 - accuracy: 0.6358
Epoch 41/75
39/39 [=====] - 0s 2ms/step - loss: 0.6463 - accuracy: 0.6667
Epoch 42/75
39/39 [=====] - 0s 2ms/step - loss: 0.6433 - accuracy: 0.6813
Epoch 43/75
39/39 [=====] - 0s 2ms/step - loss: 0.6394 - accuracy: 0.6439
Epoch 44/75
39/39 [=====] - 0s 2ms/step - loss: 0.6535 - accuracy: 0.6813
Epoch 45/75
39/39 [=====] - 0s 2ms/step - loss: 0.6410 - accuracy: 0.6797
Epoch 46/75
39/39 [=====] - 0s 2ms/step - loss: 0.6378 - accuracy: 0.6439
Epoch 47/75
39/39 [=====] - 0s 3ms/step - loss: 0.6430 - accuracy: 0.6764
```



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Epoch 48/75
39/39 [=====] - 0s 2ms/step - loss: 0.6366 - accuracy: 0.6488
Epoch 49/75
39/39 [=====] - 0s 2ms/step - loss: 0.6398 - accuracy: 0.6520
Epoch 50/75
39/39 [=====] - 0s 2ms/step - loss: 0.6426 - accuracy: 0.6537
Epoch 51/75
39/39 [=====] - 0s 2ms/step - loss: 0.6466 - accuracy: 0.6602
Epoch 52/75
39/39 [=====] - 0s 4ms/step - loss: 0.6383 - accuracy: 0.6569
Epoch 53/75
39/39 [=====] - 0s 2ms/step - loss: 0.6376 - accuracy: 0.6569
Epoch 54/75
39/39 [=====] - 0s 2ms/step - loss: 0.6357 - accuracy: 0.6569
Epoch 55/75
39/39 [=====] - 0s 2ms/step - loss: 0.6273 - accuracy: 0.6780
Epoch 56/75
39/39 [=====] - 0s 2ms/step - loss: 0.6365 - accuracy: 0.6699
Epoch 57/75
39/39 [=====] - 0s 2ms/step - loss: 0.6288 - accuracy: 0.6407
Epoch 58/75
39/39 [=====] - 0s 2ms/step - loss: 0.6352 - accuracy: 0.6407
Epoch 59/75
39/39 [=====] - 0s 2ms/step - loss: 0.6430 - accuracy: 0.6553
Epoch 60/75
39/39 [=====] - 0s 2ms/step - loss: 0.6223 - accuracy: 0.6829
Epoch 61/75
39/39 [=====] - 0s 2ms/step - loss: 0.6188 - accuracy: 0.6764
Epoch 62/75
39/39 [=====] - 0s 2ms/step - loss: 0.6255 - accuracy: 0.6634
Epoch 63/75
39/39 [=====] - 0s 2ms/step - loss: 0.6350 - accuracy: 0.6585
Epoch 64/75
39/39 [=====] - 0s 2ms/step - loss: 0.6301 - accuracy: 0.6862
Epoch 65/75
39/39 [=====] - 0s 2ms/step - loss: 0.6296 - accuracy: 0.6699
Epoch 66/75
39/39 [=====] - 0s 2ms/step - loss: 0.6334 - accuracy: 0.6553
Epoch 67/75
39/39 [=====] - 0s 2ms/step - loss: 0.6374 - accuracy: 0.6699
Epoch 68/75
39/39 [=====] - 0s 3ms/step - loss: 0.6319 - accuracy: 0.6569
Epoch 69/75
39/39 [=====] - 0s 3ms/step - loss: 0.6240 - accuracy: 0.6618
Epoch 70/75
39/39 [=====] - 0s 3ms/step - loss: 0.6207 - accuracy: 0.6797
Epoch 71/75
39/39 [=====] - 0s 1ms/step - loss: 0.6365 - accuracy: 0.6602
Epoch 72/75
39/39 [=====] - 0s 2ms/step - loss: 0.6205 - accuracy: 0.6846
Epoch 73/75
39/39 [=====] - 0s 2ms/step - loss: 0.6296 - accuracy: 0.6650
Epoch 74/75
39/39 [=====] - 0s 2ms/step - loss: 0.6250 - accuracy: 0.6780
Epoch 75/75
39/39 [=====] - 0s 2ms/step - loss: 0.6268 - accuracy: 0.6667
10/10 [=====] - 0s 2ms/step - loss: 0.5453 - accuracy: 0.7582
Epoch 1/75
39/39 [=====] - 1s 2ms/step - loss: 3.8104 - accuracy: 0.6163
Epoch 2/75
39/39 [=====] - 0s 3ms/step - loss: 2.0674 - accuracy: 0.6520
Epoch 3/75
39/39 [=====] - 0s 2ms/step - loss: 1.8601 - accuracy: 0.6520
Epoch 4/75
39/39 [=====] - 0s 3ms/step - loss: 1.6840 - accuracy: 0.6520
Epoch 5/75
39/39 [=====] - 0s 3ms/step - loss: 1.5332 - accuracy: 0.6520
Epoch 6/75
39/39 [=====] - 0s 3ms/step - loss: 1.4043 - accuracy: 0.6520
Epoch 7/75
39/39 [=====] - 0s 3ms/step - loss: 1.2943 - accuracy: 0.6520
Epoch 8/75
39/39 [=====] - 0s 2ms/step - loss: 1.2001 - accuracy: 0.6520
Epoch 9/75
39/39 [=====] - 0s 5ms/step - loss: 1.1200 - accuracy: 0.6520
Epoch 10/75
39/39 [=====] - 0s 2ms/step - loss: 1.0511 - accuracy: 0.6520
Epoch 11/75
39/39 [=====] - 0s 3ms/step - loss: 0.9924 - accuracy: 0.6520
Epoch 12/75
39/39 [=====] - 0s 3ms/step - loss: 0.9422 - accuracy: 0.6520
Epoch 13/75
```

39/39 [=====] - 0s 3ms/step - loss: 0.8993 - accuracy: 0.6520
Epoch 14/75
39/39 [=====] - 0s 2ms/step - loss: 0.8626 - accuracy: 0.6520
Epoch 15/75
39/39 [=====] - 0s 3ms/step - loss: 0.8312 - accuracy: 0.6520
Epoch 16/75
39/39 [=====] - 0s 2ms/step - loss: 0.8044 - accuracy: 0.6520
Epoch 17/75
39/39 [=====] - 0s 3ms/step - loss: 0.7816 - accuracy: 0.6520
Epoch 18/75
39/39 [=====] - 0s 3ms/step - loss: 0.7619 - accuracy: 0.6520
Epoch 19/75
39/39 [=====] - 0s 3ms/step - loss: 0.7451 - accuracy: 0.6520
Epoch 20/75
39/39 [=====] - 0s 2ms/step - loss: 0.7308 - accuracy: 0.6520
Epoch 21/75
39/39 [=====] - 0s 3ms/step - loss: 0.7186 - accuracy: 0.6520
Epoch 22/75
39/39 [=====] - 0s 2ms/step - loss: 0.7081 - accuracy: 0.6520
Epoch 23/75
39/39 [=====] - 0s 2ms/step - loss: 0.6992 - accuracy: 0.6520
Epoch 24/75
39/39 [=====] - 0s 2ms/step - loss: 0.6915 - accuracy: 0.6520
Epoch 25/75
39/39 [=====] - 0s 3ms/step - loss: 0.6850 - accuracy: 0.6520
Epoch 26/75
39/39 [=====] - 0s 2ms/step - loss: 0.6794 - accuracy: 0.6520
Epoch 27/75
39/39 [=====] - 0s 3ms/step - loss: 0.6745 - accuracy: 0.6520
Epoch 28/75
39/39 [=====] - 0s 2ms/step - loss: 0.6704 - accuracy: 0.6520
Epoch 29/75
39/39 [=====] - 0s 2ms/step - loss: 0.6669 - accuracy: 0.6520
Epoch 30/75
39/39 [=====] - 0s 2ms/step - loss: 0.6639 - accuracy: 0.6520
Epoch 31/75
39/39 [=====] - 0s 2ms/step - loss: 0.6614 - accuracy: 0.6520
Epoch 32/75
39/39 [=====] - 0s 2ms/step - loss: 0.6592 - accuracy: 0.6520
Epoch 33/75
39/39 [=====] - 0s 2ms/step - loss: 0.6573 - accuracy: 0.6520
Epoch 34/75
39/39 [=====] - 0s 2ms/step - loss: 0.6557 - accuracy: 0.6520
Epoch 35/75
39/39 [=====] - 0s 2ms/step - loss: 0.6543 - accuracy: 0.6520
Epoch 36/75
39/39 [=====] - 0s 2ms/step - loss: 0.6532 - accuracy: 0.6520
Epoch 37/75
39/39 [=====] - 0s 2ms/step - loss: 0.6522 - accuracy: 0.6520
Epoch 38/75
39/39 [=====] - 0s 2ms/step - loss: 0.6513 - accuracy: 0.6520
Epoch 39/75
39/39 [=====] - 0s 2ms/step - loss: 0.6506 - accuracy: 0.6520
Epoch 40/75
39/39 [=====] - 0s 3ms/step - loss: 0.6499 - accuracy: 0.6520
Epoch 41/75
39/39 [=====] - 0s 2ms/step - loss: 0.6494 - accuracy: 0.6520
Epoch 42/75
39/39 [=====] - 0s 2ms/step - loss: 0.6489 - accuracy: 0.6520
Epoch 43/75
39/39 [=====] - 0s 2ms/step - loss: 0.6486 - accuracy: 0.6520
Epoch 44/75
39/39 [=====] - 0s 3ms/step - loss: 0.6483 - accuracy: 0.6520
Epoch 45/75
39/39 [=====] - 0s 2ms/step - loss: 0.6479 - accuracy: 0.6520
Epoch 46/75
39/39 [=====] - 0s 3ms/step - loss: 0.6477 - accuracy: 0.6520
Epoch 47/75
39/39 [=====] - 0s 2ms/step - loss: 0.6475 - accuracy: 0.6520
Epoch 48/75
39/39 [=====] - 0s 2ms/step - loss: 0.6473 - accuracy: 0.6520
Epoch 49/75
39/39 [=====] - 0s 2ms/step - loss: 0.6471 - accuracy: 0.6520
Epoch 50/75
39/39 [=====] - 0s 2ms/step - loss: 0.6470 - accuracy: 0.6520
Epoch 51/75
39/39 [=====] - 0s 2ms/step - loss: 0.6469 - accuracy: 0.6520
Epoch 52/75
39/39 [=====] - 0s 2ms/step - loss: 0.6468 - accuracy: 0.6520
Epoch 53/75
39/39 [=====] - 0s 2ms/step - loss: 0.6468 - accuracy: 0.6520
Epoch 54/75

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39/39 [=====] - 0s 1ms/step - loss: 0.6467 - accuracy: 0.6520
Epoch 55/75
39/39 [=====] - 0s 2ms/step - loss: 0.6466 - accuracy: 0.6520
Epoch 56/75
39/39 [=====] - 0s 2ms/step - loss: 0.6465 - accuracy: 0.6520
Epoch 57/75
39/39 [=====] - 0s 3ms/step - loss: 0.6465 - accuracy: 0.6520
Epoch 58/75
39/39 [=====] - 0s 2ms/step - loss: 0.6465 - accuracy: 0.6520
Epoch 59/75
39/39 [=====] - 0s 2ms/step - loss: 0.6464 - accuracy: 0.6520
Epoch 60/75
39/39 [=====] - 0s 5ms/step - loss: 0.6464 - accuracy: 0.6520
Epoch 61/75
39/39 [=====] - 0s 4ms/step - loss: 0.6464 - accuracy: 0.6520
Epoch 62/75
39/39 [=====] - 0s 2ms/step - loss: 0.6464 - accuracy: 0.6520
Epoch 63/75
39/39 [=====] - 0s 3ms/step - loss: 0.6463 - accuracy: 0.6520
Epoch 64/75
39/39 [=====] - 0s 2ms/step - loss: 0.6464 - accuracy: 0.6520
Epoch 65/75
39/39 [=====] - 0s 2ms/step - loss: 0.6463 - accuracy: 0.6520
Epoch 66/75
39/39 [=====] - 0s 2ms/step - loss: 0.6463 - accuracy: 0.6520
Epoch 67/75
39/39 [=====] - 0s 4ms/step - loss: 0.6463 - accuracy: 0.6520
Epoch 68/75
39/39 [=====] - 0s 3ms/step - loss: 0.6463 - accuracy: 0.6520
Epoch 69/75
39/39 [=====] - 0s 2ms/step - loss: 0.6463 - accuracy: 0.6520
Epoch 70/75
39/39 [=====] - 0s 2ms/step - loss: 0.6463 - accuracy: 0.6520
Epoch 71/75
39/39 [=====] - 0s 3ms/step - loss: 0.6463 - accuracy: 0.6520
Epoch 72/75
39/39 [=====] - 0s 2ms/step - loss: 0.6463 - accuracy: 0.6520
Epoch 73/75
39/39 [=====] - 0s 2ms/step - loss: 0.6463 - accuracy: 0.6520
Epoch 74/75
39/39 [=====] - 0s 2ms/step - loss: 0.6463 - accuracy: 0.6520
Epoch 75/75
39/39 [=====] - 0s 2ms/step - loss: 0.6463 - accuracy: 0.6520
10/10 [=====] - 0s 1ms/step - loss: 0.6493 - accuracy: 0.6471
Epoch 1/75
39/39 [=====] - 0s 1ms/step - loss: 6.5895 - accuracy: 0.5814
Epoch 2/75
39/39 [=====] - 0s 1ms/step - loss: 2.7690 - accuracy: 0.6726
Epoch 3/75
39/39 [=====] - 0s 2ms/step - loss: 1.6059 - accuracy: 0.6792
Epoch 4/75
39/39 [=====] - 0s 2ms/step - loss: 1.1040 - accuracy: 0.6466
Epoch 5/75
39/39 [=====] - 0s 2ms/step - loss: 0.8667 - accuracy: 0.6726
Epoch 6/75
39/39 [=====] - 0s 2ms/step - loss: 0.7539 - accuracy: 0.6580
Epoch 7/75
39/39 [=====] - 0s 2ms/step - loss: 0.7106 - accuracy: 0.6645
Epoch 8/75
39/39 [=====] - 0s 2ms/step - loss: 0.6858 - accuracy: 0.6450
Epoch 9/75
39/39 [=====] - 0s 2ms/step - loss: 0.6704 - accuracy: 0.6580
Epoch 10/75
39/39 [=====] - 0s 4ms/step - loss: 0.6656 - accuracy: 0.6564
Epoch 11/75
39/39 [=====] - 0s 3ms/step - loss: 0.6623 - accuracy: 0.6515
Epoch 12/75
39/39 [=====] - 0s 2ms/step - loss: 0.6580 - accuracy: 0.6515
Epoch 13/75
39/39 [=====] - 0s 3ms/step - loss: 0.6586 - accuracy: 0.6531
Epoch 14/75
39/39 [=====] - 0s 3ms/step - loss: 0.6516 - accuracy: 0.6596
Epoch 15/75
39/39 [=====] - 0s 3ms/step - loss: 0.6524 - accuracy: 0.6612
Epoch 16/75
39/39 [=====] - 0s 3ms/step - loss: 0.6540 - accuracy: 0.6531
Epoch 17/75
39/39 [=====] - 0s 3ms/step - loss: 0.6528 - accuracy: 0.6547
Epoch 18/75
39/39 [=====] - 0s 2ms/step - loss: 0.6455 - accuracy: 0.6678
Epoch 19/75
39/39 [=====] - 0s 4ms/step - loss: 0.6511 - accuracy: 0.6368
```

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Epoch 20/75
39/39 [=====] - 0s 2ms/step - loss: 0.6472 - accuracy: 0.6498
Epoch 21/75
39/39 [=====] - 0s 2ms/step - loss: 0.6465 - accuracy: 0.6466
Epoch 22/75
39/39 [=====] - 0s 3ms/step - loss: 0.6436 - accuracy: 0.6629
Epoch 23/75
39/39 [=====] - 0s 2ms/step - loss: 0.6459 - accuracy: 0.6580
Epoch 24/75
39/39 [=====] - 0s 4ms/step - loss: 0.6411 - accuracy: 0.6645
Epoch 25/75
39/39 [=====] - 0s 2ms/step - loss: 0.6395 - accuracy: 0.6710
Epoch 26/75
39/39 [=====] - 0s 3ms/step - loss: 0.6414 - accuracy: 0.6629
Epoch 27/75
39/39 [=====] - 0s 3ms/step - loss: 0.6397 - accuracy: 0.6596
Epoch 28/75
39/39 [=====] - 0s 3ms/step - loss: 0.6368 - accuracy: 0.6678
Epoch 29/75
39/39 [=====] - 0s 3ms/step - loss: 0.6394 - accuracy: 0.6759
Epoch 30/75
39/39 [=====] - 0s 2ms/step - loss: 0.6374 - accuracy: 0.6808
Epoch 31/75
39/39 [=====] - 0s 3ms/step - loss: 0.6470 - accuracy: 0.6564
Epoch 32/75
39/39 [=====] - 0s 3ms/step - loss: 0.6397 - accuracy: 0.6466
Epoch 33/75
39/39 [=====] - 0s 3ms/step - loss: 0.6340 - accuracy: 0.6645
Epoch 34/75
39/39 [=====] - 0s 5ms/step - loss: 0.6322 - accuracy: 0.6694
Epoch 35/75
39/39 [=====] - 0s 3ms/step - loss: 0.6351 - accuracy: 0.6759
Epoch 36/75
39/39 [=====] - 0s 2ms/step - loss: 0.6349 - accuracy: 0.6645
Epoch 37/75
39/39 [=====] - 0s 3ms/step - loss: 0.6326 - accuracy: 0.6694
Epoch 38/75
39/39 [=====] - 0s 2ms/step - loss: 0.6355 - accuracy: 0.6661
Epoch 39/75
39/39 [=====] - 0s 2ms/step - loss: 0.6401 - accuracy: 0.6564
Epoch 40/75
39/39 [=====] - 0s 4ms/step - loss: 0.6325 - accuracy: 0.6775
Epoch 41/75
39/39 [=====] - 0s 2ms/step - loss: 0.6314 - accuracy: 0.6564
Epoch 42/75
39/39 [=====] - 0s 2ms/step - loss: 0.6302 - accuracy: 0.6857
Epoch 43/75
39/39 [=====] - 0s 2ms/step - loss: 0.6299 - accuracy: 0.6759
Epoch 44/75
39/39 [=====] - 0s 2ms/step - loss: 0.6313 - accuracy: 0.6710
Epoch 45/75
39/39 [=====] - 0s 2ms/step - loss: 0.6295 - accuracy: 0.6857
Epoch 46/75
39/39 [=====] - 0s 2ms/step - loss: 0.6323 - accuracy: 0.6710
Epoch 47/75
39/39 [=====] - 0s 2ms/step - loss: 0.6269 - accuracy: 0.6808
Epoch 48/75
39/39 [=====] - 0s 2ms/step - loss: 0.6255 - accuracy: 0.6775
Epoch 49/75
39/39 [=====] - 0s 2ms/step - loss: 0.6289 - accuracy: 0.6792
Epoch 50/75
39/39 [=====] - 0s 2ms/step - loss: 0.6351 - accuracy: 0.6580
Epoch 51/75
39/39 [=====] - 0s 2ms/step - loss: 0.6272 - accuracy: 0.6743
Epoch 52/75
39/39 [=====] - 0s 2ms/step - loss: 0.6265 - accuracy: 0.6938
Epoch 53/75
39/39 [=====] - 0s 2ms/step - loss: 0.6218 - accuracy: 0.6808
Epoch 54/75
39/39 [=====] - 0s 2ms/step - loss: 0.6238 - accuracy: 0.6775
Epoch 55/75
39/39 [=====] - 0s 2ms/step - loss: 0.6384 - accuracy: 0.6710
Epoch 56/75
39/39 [=====] - 0s 2ms/step - loss: 0.6286 - accuracy: 0.6775
Epoch 57/75
39/39 [=====] - 0s 2ms/step - loss: 0.6236 - accuracy: 0.6938
Epoch 58/75
39/39 [=====] - 0s 2ms/step - loss: 0.6374 - accuracy: 0.6743
Epoch 59/75
39/39 [=====] - 0s 2ms/step - loss: 0.6236 - accuracy: 0.6759
Epoch 60/75
39/39 [=====] - 0s 2ms/step - loss: 0.6162 - accuracy: 0.6808
```

Epoch 61/75
39/39 [=====] - 0s 2ms/step - loss: 0.6349 - accuracy: 0.6743
Epoch 62/75
39/39 [=====] - 0s 2ms/step - loss: 0.6120 - accuracy: 0.6857
Epoch 63/75
39/39 [=====] - 0s 2ms/step - loss: 0.6225 - accuracy: 0.6824
Epoch 64/75
39/39 [=====] - 0s 3ms/step - loss: 0.6167 - accuracy: 0.6906
Epoch 65/75
39/39 [=====] - 0s 2ms/step - loss: 0.6366 - accuracy: 0.6596
Epoch 66/75
39/39 [=====] - 0s 3ms/step - loss: 0.6335 - accuracy: 0.6775
Epoch 67/75
39/39 [=====] - 0s 2ms/step - loss: 0.6217 - accuracy: 0.6889
Epoch 68/75
39/39 [=====] - 0s 3ms/step - loss: 0.6237 - accuracy: 0.6743
Epoch 69/75
39/39 [=====] - 0s 4ms/step - loss: 0.6150 - accuracy: 0.7020
Epoch 70/75
39/39 [=====] - 0s 2ms/step - loss: 0.6202 - accuracy: 0.6580
Epoch 71/75
39/39 [=====] - 0s 2ms/step - loss: 0.6348 - accuracy: 0.6792
Epoch 72/75
39/39 [=====] - 0s 3ms/step - loss: 0.6268 - accuracy: 0.6906
Epoch 73/75
39/39 [=====] - 0s 2ms/step - loss: 0.6311 - accuracy: 0.6629
Epoch 74/75
39/39 [=====] - 0s 3ms/step - loss: 0.6191 - accuracy: 0.6954
Epoch 75/75
39/39 [=====] - 0s 3ms/step - loss: 0.6179 - accuracy: 0.6792
10/10 [=====] - 0s 2ms/step - loss: 0.6173 - accuracy: 0.6688
Epoch 1/75
39/39 [=====] - 1s 1ms/step - loss: 6.4971 - accuracy: 0.6336
Epoch 2/75
39/39 [=====] - 0s 1ms/step - loss: 2.8912 - accuracy: 0.6612
Epoch 3/75
39/39 [=====] - 0s 2ms/step - loss: 1.6784 - accuracy: 0.6645
Epoch 4/75
39/39 [=====] - 0s 3ms/step - loss: 1.1298 - accuracy: 0.6645
Epoch 5/75
39/39 [=====] - 0s 2ms/step - loss: 0.8765 - accuracy: 0.6726
Epoch 6/75
39/39 [=====] - 0s 3ms/step - loss: 0.7608 - accuracy: 0.6726
Epoch 7/75
39/39 [=====] - 0s 2ms/step - loss: 0.7065 - accuracy: 0.6661
Epoch 8/75
39/39 [=====] - 0s 3ms/step - loss: 0.6808 - accuracy: 0.6710
Epoch 9/75
39/39 [=====] - 0s 2ms/step - loss: 0.6658 - accuracy: 0.6743
Epoch 10/75
39/39 [=====] - 0s 3ms/step - loss: 0.6600 - accuracy: 0.6678
Epoch 11/75
39/39 [=====] - 0s 3ms/step - loss: 0.6544 - accuracy: 0.6678
Epoch 12/75
39/39 [=====] - 0s 4ms/step - loss: 0.6539 - accuracy: 0.6694
Epoch 13/75
39/39 [=====] - 0s 4ms/step - loss: 0.6502 - accuracy: 0.6678
Epoch 14/75
39/39 [=====] - 0s 3ms/step - loss: 0.6477 - accuracy: 0.6726
Epoch 15/75
39/39 [=====] - 0s 3ms/step - loss: 0.6463 - accuracy: 0.6661
Epoch 16/75
39/39 [=====] - 0s 3ms/step - loss: 0.6437 - accuracy: 0.6726
Epoch 17/75
39/39 [=====] - 0s 4ms/step - loss: 0.6451 - accuracy: 0.6678
Epoch 18/75
39/39 [=====] - 0s 3ms/step - loss: 0.6408 - accuracy: 0.6743
Epoch 19/75
39/39 [=====] - 0s 2ms/step - loss: 0.6369 - accuracy: 0.6792
Epoch 20/75
39/39 [=====] - 0s 3ms/step - loss: 0.6380 - accuracy: 0.6694
Epoch 21/75
39/39 [=====] - 0s 2ms/step - loss: 0.6393 - accuracy: 0.6710
Epoch 22/75
39/39 [=====] - 0s 3ms/step - loss: 0.6368 - accuracy: 0.6678
Epoch 23/75
39/39 [=====] - 0s 3ms/step - loss: 0.6362 - accuracy: 0.6808
Epoch 24/75
39/39 [=====] - 0s 2ms/step - loss: 0.6350 - accuracy: 0.6726
Epoch 25/75
39/39 [=====] - 0s 3ms/step - loss: 0.6304 - accuracy: 0.6792
Epoch 26/75

39/39 [=====] - 0s 3ms/step - loss: 0.6308 - accuracy: 0.6726
Epoch 27/75
39/39 [=====] - 0s 4ms/step - loss: 0.6305 - accuracy: 0.6726
Epoch 28/75
39/39 [=====] - 0s 2ms/step - loss: 0.6309 - accuracy: 0.6726
Epoch 29/75
39/39 [=====] - 0s 2ms/step - loss: 0.6281 - accuracy: 0.6726
Epoch 30/75
39/39 [=====] - 0s 2ms/step - loss: 0.6287 - accuracy: 0.6726
Epoch 31/75
39/39 [=====] - 0s 2ms/step - loss: 0.6301 - accuracy: 0.6694
Epoch 32/75
39/39 [=====] - 0s 2ms/step - loss: 0.6266 - accuracy: 0.6661
Epoch 33/75
39/39 [=====] - 0s 2ms/step - loss: 0.6238 - accuracy: 0.6808
Epoch 34/75
39/39 [=====] - 0s 2ms/step - loss: 0.6263 - accuracy: 0.6759
Epoch 35/75
39/39 [=====] - 0s 2ms/step - loss: 0.6220 - accuracy: 0.6954
Epoch 36/75
39/39 [=====] - 0s 2ms/step - loss: 0.6229 - accuracy: 0.6726
Epoch 37/75
39/39 [=====] - 0s 2ms/step - loss: 0.6243 - accuracy: 0.6792
Epoch 38/75
39/39 [=====] - 0s 4ms/step - loss: 0.6196 - accuracy: 0.6726
Epoch 39/75
39/39 [=====] - 0s 2ms/step - loss: 0.6197 - accuracy: 0.6840
Epoch 40/75
39/39 [=====] - 0s 2ms/step - loss: 0.6197 - accuracy: 0.6775
Epoch 41/75
39/39 [=====] - 0s 2ms/step - loss: 0.6225 - accuracy: 0.6726
Epoch 42/75
39/39 [=====] - 0s 2ms/step - loss: 0.6163 - accuracy: 0.6840
Epoch 43/75
39/39 [=====] - 0s 3ms/step - loss: 0.6208 - accuracy: 0.6775
Epoch 44/75
39/39 [=====] - 0s 3ms/step - loss: 0.6225 - accuracy: 0.6808
Epoch 45/75
39/39 [=====] - 0s 3ms/step - loss: 0.6213 - accuracy: 0.6775
Epoch 46/75
39/39 [=====] - 0s 3ms/step - loss: 0.6239 - accuracy: 0.6808
Epoch 47/75
39/39 [=====] - 0s 2ms/step - loss: 0.6135 - accuracy: 0.6889
Epoch 48/75
39/39 [=====] - 0s 3ms/step - loss: 0.6198 - accuracy: 0.6906
Epoch 49/75
39/39 [=====] - 0s 3ms/step - loss: 0.6232 - accuracy: 0.6873
Epoch 50/75
39/39 [=====] - 0s 2ms/step - loss: 0.6187 - accuracy: 0.6840
Epoch 51/75
39/39 [=====] - 0s 3ms/step - loss: 0.6153 - accuracy: 0.6922
Epoch 52/75
39/39 [=====] - 0s 3ms/step - loss: 0.6138 - accuracy: 0.7020
Epoch 53/75
39/39 [=====] - 0s 3ms/step - loss: 0.6176 - accuracy: 0.6906
Epoch 54/75
39/39 [=====] - 0s 3ms/step - loss: 0.6169 - accuracy: 0.6906
Epoch 55/75
39/39 [=====] - 0s 3ms/step - loss: 0.6203 - accuracy: 0.6775
Epoch 56/75
39/39 [=====] - 0s 2ms/step - loss: 0.6110 - accuracy: 0.6857
Epoch 57/75
39/39 [=====] - 0s 3ms/step - loss: 0.6167 - accuracy: 0.6840
Epoch 58/75
39/39 [=====] - 0s 4ms/step - loss: 0.6142 - accuracy: 0.6922
Epoch 59/75
39/39 [=====] - 0s 3ms/step - loss: 0.6042 - accuracy: 0.6938
Epoch 60/75
39/39 [=====] - 0s 4ms/step - loss: 0.6164 - accuracy: 0.6873
Epoch 61/75
39/39 [=====] - 0s 3ms/step - loss: 0.6153 - accuracy: 0.7020
Epoch 62/75
39/39 [=====] - 0s 4ms/step - loss: 0.6137 - accuracy: 0.6775
Epoch 63/75
39/39 [=====] - 0s 3ms/step - loss: 0.6144 - accuracy: 0.6873
Epoch 64/75
39/39 [=====] - 0s 3ms/step - loss: 0.6108 - accuracy: 0.6792
Epoch 65/75
39/39 [=====] - 0s 3ms/step - loss: 0.6095 - accuracy: 0.6840
Epoch 66/75
39/39 [=====] - 0s 3ms/step - loss: 0.6146 - accuracy: 0.6906
Epoch 67/75

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39/39 [=====] - 0s 3ms/step - loss: 0.6150 - accuracy: 0.6726
Epoch 68/75
39/39 [=====] - 0s 2ms/step - loss: 0.6159 - accuracy: 0.6775
Epoch 69/75
39/39 [=====] - 0s 3ms/step - loss: 0.6094 - accuracy: 0.6938
Epoch 70/75
39/39 [=====] - 0s 2ms/step - loss: 0.5995 - accuracy: 0.6906
Epoch 71/75
39/39 [=====] - 0s 3ms/step - loss: 0.6196 - accuracy: 0.6824
Epoch 72/75
39/39 [=====] - 0s 2ms/step - loss: 0.6078 - accuracy: 0.6954
Epoch 73/75
39/39 [=====] - 0s 2ms/step - loss: 0.6045 - accuracy: 0.7134
Epoch 74/75
39/39 [=====] - 0s 3ms/step - loss: 0.6081 - accuracy: 0.6873
Epoch 75/75
39/39 [=====] - 0s 2ms/step - loss: 0.6198 - accuracy: 0.6873
10/10 [=====] - 0s 1ms/step - loss: 0.6643 - accuracy: 0.5909
Epoch 1/75
39/39 [=====] - 1s 2ms/step - loss: 7.4598 - accuracy: 0.6482
Epoch 2/75
39/39 [=====] - 0s 4ms/step - loss: 3.1786 - accuracy: 0.6498
Epoch 3/75
39/39 [=====] - 0s 3ms/step - loss: 1.8132 - accuracy: 0.6482
Epoch 4/75
39/39 [=====] - 0s 3ms/step - loss: 1.1835 - accuracy: 0.6482
Epoch 5/75
39/39 [=====] - 0s 3ms/step - loss: 0.8999 - accuracy: 0.6580
Epoch 6/75
39/39 [=====] - 0s 5ms/step - loss: 0.7746 - accuracy: 0.6564
Epoch 7/75
39/39 [=====] - 0s 5ms/step - loss: 0.7088 - accuracy: 0.6564
Epoch 8/75
39/39 [=====] - 0s 4ms/step - loss: 0.6835 - accuracy: 0.6629
Epoch 9/75
39/39 [=====] - 0s 4ms/step - loss: 0.6721 - accuracy: 0.6547
Epoch 10/75
39/39 [=====] - 0s 4ms/step - loss: 0.6622 - accuracy: 0.6498
Epoch 11/75
39/39 [=====] - 0s 4ms/step - loss: 0.6600 - accuracy: 0.6564
Epoch 12/75
39/39 [=====] - 0s 5ms/step - loss: 0.6569 - accuracy: 0.6564
Epoch 13/75
39/39 [=====] - 0s 3ms/step - loss: 0.6561 - accuracy: 0.6564
Epoch 14/75
39/39 [=====] - 0s 3ms/step - loss: 0.6542 - accuracy: 0.6564
Epoch 15/75
39/39 [=====] - 0s 3ms/step - loss: 0.6536 - accuracy: 0.6564
Epoch 16/75
39/39 [=====] - 0s 3ms/step - loss: 0.6519 - accuracy: 0.6564
Epoch 17/75
39/39 [=====] - 0s 3ms/step - loss: 0.6502 - accuracy: 0.6564
Epoch 18/75
39/39 [=====] - 0s 3ms/step - loss: 0.6491 - accuracy: 0.6564
Epoch 19/75
39/39 [=====] - 0s 3ms/step - loss: 0.6483 - accuracy: 0.6564
Epoch 20/75
39/39 [=====] - 0s 2ms/step - loss: 0.6472 - accuracy: 0.6564
Epoch 21/75
39/39 [=====] - 0s 3ms/step - loss: 0.6466 - accuracy: 0.6564
Epoch 22/75
39/39 [=====] - 0s 3ms/step - loss: 0.6473 - accuracy: 0.6547
Epoch 23/75
39/39 [=====] - 0s 3ms/step - loss: 0.6450 - accuracy: 0.6580
Epoch 24/75
39/39 [=====] - 0s 4ms/step - loss: 0.6440 - accuracy: 0.6580
Epoch 25/75
39/39 [=====] - 0s 3ms/step - loss: 0.6459 - accuracy: 0.6564
Epoch 26/75
39/39 [=====] - 0s 2ms/step - loss: 0.6429 - accuracy: 0.6564
Epoch 27/75
39/39 [=====] - 0s 3ms/step - loss: 0.6428 - accuracy: 0.6596
Epoch 28/75
39/39 [=====] - 0s 3ms/step - loss: 0.6416 - accuracy: 0.6580
Epoch 29/75
39/39 [=====] - 0s 3ms/step - loss: 0.6407 - accuracy: 0.6580
Epoch 30/75
39/39 [=====] - 0s 4ms/step - loss: 0.6394 - accuracy: 0.6580
Epoch 31/75
39/39 [=====] - 0s 3ms/step - loss: 0.6410 - accuracy: 0.6612
Epoch 32/75
39/39 [=====] - 0s 3ms/step - loss: 0.6394 - accuracy: 0.6564
```

Epoch 33/75
39/39 [=====] - 0s 2ms/step - loss: 0.6385 - accuracy: 0.6580
Epoch 34/75
39/39 [=====] - 0s 4ms/step - loss: 0.6390 - accuracy: 0.6580
Epoch 35/75
39/39 [=====] - 0s 3ms/step - loss: 0.6368 - accuracy: 0.6547
Epoch 36/75
39/39 [=====] - 0s 4ms/step - loss: 0.6377 - accuracy: 0.6580
Epoch 37/75
39/39 [=====] - 0s 3ms/step - loss: 0.6365 - accuracy: 0.6596
Epoch 38/75
39/39 [=====] - 0s 3ms/step - loss: 0.6323 - accuracy: 0.6645
Epoch 39/75
39/39 [=====] - 0s 4ms/step - loss: 0.6353 - accuracy: 0.6596
Epoch 40/75
39/39 [=====] - 0s 3ms/step - loss: 0.6317 - accuracy: 0.6645
Epoch 41/75
39/39 [=====] - 0s 3ms/step - loss: 0.6305 - accuracy: 0.6629
Epoch 42/75
39/39 [=====] - 0s 3ms/step - loss: 0.6327 - accuracy: 0.6629
Epoch 43/75
39/39 [=====] - 0s 3ms/step - loss: 0.6307 - accuracy: 0.6661
Epoch 44/75
39/39 [=====] - 0s 4ms/step - loss: 0.6316 - accuracy: 0.6629
Epoch 45/75
39/39 [=====] - 0s 4ms/step - loss: 0.6307 - accuracy: 0.6629
Epoch 46/75
39/39 [=====] - 0s 3ms/step - loss: 0.6324 - accuracy: 0.6596
Epoch 47/75
39/39 [=====] - 0s 3ms/step - loss: 0.6321 - accuracy: 0.6629
Epoch 48/75
39/39 [=====] - 0s 2ms/step - loss: 0.6289 - accuracy: 0.6564
Epoch 49/75
39/39 [=====] - 0s 3ms/step - loss: 0.6295 - accuracy: 0.6661
Epoch 50/75
39/39 [=====] - 0s 2ms/step - loss: 0.6295 - accuracy: 0.6612
Epoch 51/75
39/39 [=====] - 0s 3ms/step - loss: 0.6293 - accuracy: 0.6580
Epoch 52/75
39/39 [=====] - 0s 3ms/step - loss: 0.6288 - accuracy: 0.6710
Epoch 53/75
39/39 [=====] - 0s 3ms/step - loss: 0.6211 - accuracy: 0.6726
Epoch 54/75
39/39 [=====] - 0s 3ms/step - loss: 0.6252 - accuracy: 0.6694
Epoch 55/75
39/39 [=====] - 0s 5ms/step - loss: 0.6286 - accuracy: 0.6824
Epoch 56/75
39/39 [=====] - 0s 3ms/step - loss: 0.6308 - accuracy: 0.6612
Epoch 57/75
39/39 [=====] - 0s 3ms/step - loss: 0.6288 - accuracy: 0.6678
Epoch 58/75
39/39 [=====] - 0s 3ms/step - loss: 0.6228 - accuracy: 0.6857
Epoch 59/75
39/39 [=====] - 0s 3ms/step - loss: 0.6268 - accuracy: 0.6775
Epoch 60/75
39/39 [=====] - 0s 5ms/step - loss: 0.6184 - accuracy: 0.6710
Epoch 61/75
39/39 [=====] - 0s 4ms/step - loss: 0.6298 - accuracy: 0.6645
Epoch 62/75
39/39 [=====] - 0s 4ms/step - loss: 0.6224 - accuracy: 0.6873
Epoch 63/75
39/39 [=====] - 0s 3ms/step - loss: 0.6241 - accuracy: 0.6857
Epoch 64/75
39/39 [=====] - 0s 2ms/step - loss: 0.6252 - accuracy: 0.6775
Epoch 65/75
39/39 [=====] - 0s 4ms/step - loss: 0.6188 - accuracy: 0.6792
Epoch 66/75
39/39 [=====] - 0s 3ms/step - loss: 0.6292 - accuracy: 0.6564
Epoch 67/75
39/39 [=====] - 0s 3ms/step - loss: 0.6209 - accuracy: 0.6808
Epoch 68/75
39/39 [=====] - 0s 3ms/step - loss: 0.6265 - accuracy: 0.6710
Epoch 69/75
39/39 [=====] - 0s 4ms/step - loss: 0.6209 - accuracy: 0.6759
Epoch 70/75
39/39 [=====] - 0s 3ms/step - loss: 0.6238 - accuracy: 0.6759
Epoch 71/75
39/39 [=====] - 0s 3ms/step - loss: 0.6216 - accuracy: 0.6808
Epoch 72/75
39/39 [=====] - 0s 3ms/step - loss: 0.6289 - accuracy: 0.6743
Epoch 73/75
39/39 [=====] - 0s 3ms/step - loss: 0.6309 - accuracy: 0.6629


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Epoch 74/75
39/39 [=====] - 0s 3ms/step - loss: 0.6220 - accuracy: 0.6694
Epoch 75/75
39/39 [=====] - 0s 4ms/step - loss: 0.6224 - accuracy: 0.6661
10/10 [=====] - 0s 1ms/step - loss: 0.6391 - accuracy: 0.7078
Epoch 1/75
39/39 [=====] - 1s 2ms/step - loss: 5.6528 - accuracy: 0.5268
Epoch 2/75
39/39 [=====] - 0s 3ms/step - loss: 2.8323 - accuracy: 0.6081
Epoch 3/75
39/39 [=====] - 0s 3ms/step - loss: 1.6564 - accuracy: 0.6276
Epoch 4/75
39/39 [=====] - 0s 2ms/step - loss: 1.1309 - accuracy: 0.6276
Epoch 5/75
39/39 [=====] - 0s 4ms/step - loss: 0.8917 - accuracy: 0.6276
Epoch 6/75
39/39 [=====] - 0s 2ms/step - loss: 0.7669 - accuracy: 0.6276
Epoch 7/75
39/39 [=====] - 0s 4ms/step - loss: 0.7147 - accuracy: 0.6276
Epoch 8/75
39/39 [=====] - 0s 2ms/step - loss: 0.6914 - accuracy: 0.6276
Epoch 9/75
39/39 [=====] - 0s 4ms/step - loss: 0.6781 - accuracy: 0.6276
Epoch 10/75
39/39 [=====] - 0s 3ms/step - loss: 0.6726 - accuracy: 0.6276
Epoch 11/75
39/39 [=====] - 0s 2ms/step - loss: 0.6678 - accuracy: 0.6276
Epoch 12/75
39/39 [=====] - 0s 3ms/step - loss: 0.6675 - accuracy: 0.6276
Epoch 13/75
39/39 [=====] - 0s 2ms/step - loss: 0.6663 - accuracy: 0.6276
Epoch 14/75
39/39 [=====] - 0s 2ms/step - loss: 0.6645 - accuracy: 0.6276
Epoch 15/75
39/39 [=====] - 0s 3ms/step - loss: 0.6646 - accuracy: 0.6276
Epoch 16/75
39/39 [=====] - 0s 3ms/step - loss: 0.6649 - accuracy: 0.6276
Epoch 17/75
39/39 [=====] - 0s 4ms/step - loss: 0.6626 - accuracy: 0.6276
Epoch 18/75
39/39 [=====] - 0s 4ms/step - loss: 0.6615 - accuracy: 0.6276
Epoch 19/75
39/39 [=====] - 0s 4ms/step - loss: 0.6647 - accuracy: 0.6276
Epoch 20/75
39/39 [=====] - 0s 3ms/step - loss: 0.6623 - accuracy: 0.6276
Epoch 21/75
39/39 [=====] - 0s 3ms/step - loss: 0.6610 - accuracy: 0.6276
Epoch 22/75
39/39 [=====] - 0s 4ms/step - loss: 0.6611 - accuracy: 0.6276
Epoch 23/75
39/39 [=====] - 0s 2ms/step - loss: 0.6597 - accuracy: 0.6276
Epoch 24/75
39/39 [=====] - 0s 4ms/step - loss: 0.6598 - accuracy: 0.6276
Epoch 25/75
39/39 [=====] - 0s 3ms/step - loss: 0.6596 - accuracy: 0.6276
Epoch 26/75
39/39 [=====] - 0s 3ms/step - loss: 0.6591 - accuracy: 0.6276
Epoch 27/75
39/39 [=====] - 0s 2ms/step - loss: 0.6590 - accuracy: 0.6276
Epoch 28/75
39/39 [=====] - 0s 5ms/step - loss: 0.6577 - accuracy: 0.6276
Epoch 29/75
39/39 [=====] - 0s 3ms/step - loss: 0.6570 - accuracy: 0.6276
Epoch 30/75
39/39 [=====] - 0s 3ms/step - loss: 0.6584 - accuracy: 0.6276
Epoch 31/75
39/39 [=====] - 0s 3ms/step - loss: 0.6580 - accuracy: 0.6276
Epoch 32/75
39/39 [=====] - 0s 2ms/step - loss: 0.6566 - accuracy: 0.6276
Epoch 33/75
39/39 [=====] - 0s 2ms/step - loss: 0.6582 - accuracy: 0.6276
Epoch 34/75
39/39 [=====] - 0s 2ms/step - loss: 0.6565 - accuracy: 0.6276
Epoch 35/75
39/39 [=====] - 0s 3ms/step - loss: 0.6560 - accuracy: 0.6276
Epoch 36/75
39/39 [=====] - 0s 3ms/step - loss: 0.6568 - accuracy: 0.6276
Epoch 37/75
39/39 [=====] - 0s 4ms/step - loss: 0.6556 - accuracy: 0.6276
Epoch 38/75
39/39 [=====] - 0s 3ms/step - loss: 0.6547 - accuracy: 0.6276
Epoch 39/75
```

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39/39 [=====] - 0s 4ms/step - loss: 0.6560 - accuracy: 0.6276
Epoch 40/75
39/39 [=====] - 0s 4ms/step - loss: 0.6560 - accuracy: 0.6276
Epoch 41/75
39/39 [=====] - 0s 3ms/step - loss: 0.6560 - accuracy: 0.6276
Epoch 42/75
39/39 [=====] - 0s 3ms/step - loss: 0.6549 - accuracy: 0.6276
Epoch 43/75
39/39 [=====] - 0s 3ms/step - loss: 0.6559 - accuracy: 0.6276
Epoch 44/75
39/39 [=====] - 0s 3ms/step - loss: 0.6549 - accuracy: 0.6276
Epoch 45/75
39/39 [=====] - 0s 3ms/step - loss: 0.6525 - accuracy: 0.6276
Epoch 46/75
39/39 [=====] - 0s 2ms/step - loss: 0.6542 - accuracy: 0.6276
Epoch 47/75
39/39 [=====] - 0s 3ms/step - loss: 0.6549 - accuracy: 0.6276
Epoch 48/75
39/39 [=====] - 0s 2ms/step - loss: 0.6551 - accuracy: 0.6276
Epoch 49/75
39/39 [=====] - 0s 4ms/step - loss: 0.6553 - accuracy: 0.6276
Epoch 50/75
39/39 [=====] - 0s 4ms/step - loss: 0.6530 - accuracy: 0.6276
Epoch 51/75
39/39 [=====] - 0s 3ms/step - loss: 0.6535 - accuracy: 0.6276
Epoch 52/75
39/39 [=====] - 0s 2ms/step - loss: 0.6535 - accuracy: 0.6276
Epoch 53/75
39/39 [=====] - 0s 3ms/step - loss: 0.6526 - accuracy: 0.6276
Epoch 54/75
39/39 [=====] - 0s 4ms/step - loss: 0.6527 - accuracy: 0.6276
Epoch 55/75
39/39 [=====] - 0s 3ms/step - loss: 0.6512 - accuracy: 0.6276
Epoch 56/75
39/39 [=====] - 0s 3ms/step - loss: 0.6533 - accuracy: 0.6276
Epoch 57/75
39/39 [=====] - 0s 4ms/step - loss: 0.6527 - accuracy: 0.6276
Epoch 58/75
39/39 [=====] - 0s 2ms/step - loss: 0.6547 - accuracy: 0.6276
Epoch 59/75
39/39 [=====] - 0s 2ms/step - loss: 0.6541 - accuracy: 0.6276
Epoch 60/75
39/39 [=====] - 0s 3ms/step - loss: 0.6511 - accuracy: 0.6276
Epoch 61/75
39/39 [=====] - 0s 2ms/step - loss: 0.6524 - accuracy: 0.6276
Epoch 62/75
39/39 [=====] - 0s 4ms/step - loss: 0.6520 - accuracy: 0.6276
Epoch 63/75
39/39 [=====] - 0s 4ms/step - loss: 0.6524 - accuracy: 0.6276
Epoch 64/75
39/39 [=====] - 0s 3ms/step - loss: 0.6518 - accuracy: 0.6276
Epoch 65/75
39/39 [=====] - 0s 4ms/step - loss: 0.6514 - accuracy: 0.6276
Epoch 66/75
39/39 [=====] - 0s 3ms/step - loss: 0.6491 - accuracy: 0.6276
Epoch 67/75
39/39 [=====] - 0s 3ms/step - loss: 0.6515 - accuracy: 0.6276
Epoch 68/75
39/39 [=====] - 0s 3ms/step - loss: 0.6520 - accuracy: 0.6276
Epoch 69/75
39/39 [=====] - 0s 3ms/step - loss: 0.6514 - accuracy: 0.6276
Epoch 70/75
39/39 [=====] - 0s 3ms/step - loss: 0.6528 - accuracy: 0.6276
Epoch 71/75
39/39 [=====] - 0s 4ms/step - loss: 0.6502 - accuracy: 0.6276
Epoch 72/75
39/39 [=====] - 0s 2ms/step - loss: 0.6494 - accuracy: 0.6276
Epoch 73/75
39/39 [=====] - 0s 3ms/step - loss: 0.6491 - accuracy: 0.6276
Epoch 74/75
39/39 [=====] - 0s 2ms/step - loss: 0.6489 - accuracy: 0.6276
Epoch 75/75
39/39 [=====] - 0s 3ms/step - loss: 0.6477 - accuracy: 0.6276
10/10 [=====] - 0s 2ms/step - loss: 0.5705 - accuracy: 0.7451
Epoch 1/75
39/39 [=====] - 1s 3ms/step - loss: 7.3068 - accuracy: 0.6033
Epoch 2/75
39/39 [=====] - 0s 2ms/step - loss: 2.8422 - accuracy: 0.6504
Epoch 3/75
39/39 [=====] - 0s 3ms/step - loss: 1.6587 - accuracy: 0.6504
Epoch 4/75
39/39 [=====] - 0s 3ms/step - loss: 1.1241 - accuracy: 0.6455
```

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Epoch 5/75
39/39 [=====] - 0s 5ms/step - loss: 0.8738 - accuracy: 0.6537
Epoch 6/75
39/39 [=====] - 0s 3ms/step - loss: 0.7649 - accuracy: 0.6520
Epoch 7/75
39/39 [=====] - 0s 4ms/step - loss: 0.7097 - accuracy: 0.6520
Epoch 8/75
39/39 [=====] - 0s 3ms/step - loss: 0.6846 - accuracy: 0.6520
Epoch 9/75
39/39 [=====] - 0s 4ms/step - loss: 0.6727 - accuracy: 0.6520
Epoch 10/75
39/39 [=====] - 0s 3ms/step - loss: 0.6660 - accuracy: 0.6520
Epoch 11/75
39/39 [=====] - 0s 3ms/step - loss: 0.6622 - accuracy: 0.6520
Epoch 12/75
39/39 [=====] - 0s 4ms/step - loss: 0.6610 - accuracy: 0.6520
Epoch 13/75
39/39 [=====] - 0s 4ms/step - loss: 0.6578 - accuracy: 0.6520
Epoch 14/75
39/39 [=====] - 0s 3ms/step - loss: 0.6569 - accuracy: 0.6520
Epoch 15/75
39/39 [=====] - 0s 4ms/step - loss: 0.6534 - accuracy: 0.6520
Epoch 16/75
39/39 [=====] - 0s 3ms/step - loss: 0.6548 - accuracy: 0.6520
Epoch 17/75
39/39 [=====] - 0s 3ms/step - loss: 0.6535 - accuracy: 0.6520
Epoch 18/75
39/39 [=====] - 0s 2ms/step - loss: 0.6519 - accuracy: 0.6520
Epoch 19/75
39/39 [=====] - 0s 2ms/step - loss: 0.6524 - accuracy: 0.6520
Epoch 20/75
39/39 [=====] - 0s 3ms/step - loss: 0.6519 - accuracy: 0.6520
Epoch 21/75
39/39 [=====] - 0s 3ms/step - loss: 0.6503 - accuracy: 0.6520
Epoch 22/75
39/39 [=====] - 0s 4ms/step - loss: 0.6501 - accuracy: 0.6520
Epoch 23/75
39/39 [=====] - 0s 2ms/step - loss: 0.6494 - accuracy: 0.6520
Epoch 24/75
39/39 [=====] - 0s 3ms/step - loss: 0.6485 - accuracy: 0.6520
Epoch 25/75
39/39 [=====] - 0s 2ms/step - loss: 0.6482 - accuracy: 0.6520
Epoch 26/75
39/39 [=====] - 0s 4ms/step - loss: 0.6479 - accuracy: 0.6520
Epoch 27/75
39/39 [=====] - 0s 3ms/step - loss: 0.6458 - accuracy: 0.6520
Epoch 28/75
39/39 [=====] - 0s 2ms/step - loss: 0.6468 - accuracy: 0.6520
Epoch 29/75
39/39 [=====] - 0s 3ms/step - loss: 0.6462 - accuracy: 0.6520
Epoch 30/75
39/39 [=====] - 0s 2ms/step - loss: 0.6464 - accuracy: 0.6520
Epoch 31/75
39/39 [=====] - 0s 3ms/step - loss: 0.6454 - accuracy: 0.6520
Epoch 32/75
39/39 [=====] - 0s 2ms/step - loss: 0.6452 - accuracy: 0.6520
Epoch 33/75
39/39 [=====] - 0s 3ms/step - loss: 0.6445 - accuracy: 0.6520
Epoch 34/75
39/39 [=====] - 0s 4ms/step - loss: 0.6448 - accuracy: 0.6520
Epoch 35/75
39/39 [=====] - 0s 4ms/step - loss: 0.6447 - accuracy: 0.6520
Epoch 36/75
39/39 [=====] - 0s 3ms/step - loss: 0.6444 - accuracy: 0.6520
Epoch 37/75
39/39 [=====] - 0s 3ms/step - loss: 0.6440 - accuracy: 0.6520
Epoch 38/75
39/39 [=====] - 0s 3ms/step - loss: 0.6441 - accuracy: 0.6520
Epoch 39/75
39/39 [=====] - 0s 3ms/step - loss: 0.6435 - accuracy: 0.6520
Epoch 40/75
39/39 [=====] - 0s 3ms/step - loss: 0.6434 - accuracy: 0.6520
Epoch 41/75
39/39 [=====] - 0s 3ms/step - loss: 0.6429 - accuracy: 0.6520
Epoch 42/75
39/39 [=====] - 0s 4ms/step - loss: 0.6427 - accuracy: 0.6520
Epoch 43/75
39/39 [=====] - 0s 4ms/step - loss: 0.6431 - accuracy: 0.6520
Epoch 44/75
39/39 [=====] - 0s 2ms/step - loss: 0.6426 - accuracy: 0.6520
Epoch 45/75
39/39 [=====] - 0s 2ms/step - loss: 0.6418 - accuracy: 0.6520
```

Epoch 46/75
39/39 [=====] - 0s 3ms/step - loss: 0.6425 - accuracy: 0.6520
Epoch 47/75
39/39 [=====] - 0s 2ms/step - loss: 0.6411 - accuracy: 0.6520
Epoch 48/75
39/39 [=====] - 0s 2ms/step - loss: 0.6435 - accuracy: 0.6520
Epoch 49/75
39/39 [=====] - 0s 2ms/step - loss: 0.6417 - accuracy: 0.6520
Epoch 50/75
39/39 [=====] - 0s 3ms/step - loss: 0.6418 - accuracy: 0.6520
Epoch 51/75
39/39 [=====] - 0s 2ms/step - loss: 0.6408 - accuracy: 0.6520
Epoch 52/75
39/39 [=====] - 0s 3ms/step - loss: 0.6405 - accuracy: 0.6520
Epoch 53/75
39/39 [=====] - 0s 2ms/step - loss: 0.6409 - accuracy: 0.6520
Epoch 54/75
39/39 [=====] - 0s 2ms/step - loss: 0.6399 - accuracy: 0.6520
Epoch 55/75
39/39 [=====] - 0s 2ms/step - loss: 0.6410 - accuracy: 0.6520
Epoch 56/75
39/39 [=====] - 0s 2ms/step - loss: 0.6406 - accuracy: 0.6520
Epoch 57/75
39/39 [=====] - 0s 2ms/step - loss: 0.6396 - accuracy: 0.6520
Epoch 58/75
39/39 [=====] - 0s 2ms/step - loss: 0.6397 - accuracy: 0.6520
Epoch 59/75
39/39 [=====] - 0s 2ms/step - loss: 0.6391 - accuracy: 0.6520
Epoch 60/75
39/39 [=====] - 0s 2ms/step - loss: 0.6396 - accuracy: 0.6520
Epoch 61/75
39/39 [=====] - 0s 2ms/step - loss: 0.6395 - accuracy: 0.6520
Epoch 62/75
39/39 [=====] - 0s 2ms/step - loss: 0.6396 - accuracy: 0.6520
Epoch 63/75
39/39 [=====] - 0s 2ms/step - loss: 0.6392 - accuracy: 0.6520
Epoch 64/75
39/39 [=====] - 0s 2ms/step - loss: 0.6385 - accuracy: 0.6520
Epoch 65/75
39/39 [=====] - 0s 3ms/step - loss: 0.6383 - accuracy: 0.6520
Epoch 66/75
39/39 [=====] - 0s 3ms/step - loss: 0.6357 - accuracy: 0.6520
Epoch 67/75
39/39 [=====] - 0s 2ms/step - loss: 0.6375 - accuracy: 0.6520
Epoch 68/75
39/39 [=====] - 0s 3ms/step - loss: 0.6373 - accuracy: 0.6520
Epoch 69/75
39/39 [=====] - 0s 2ms/step - loss: 0.6331 - accuracy: 0.6520
Epoch 70/75
39/39 [=====] - 0s 3ms/step - loss: 0.6342 - accuracy: 0.6520
Epoch 71/75
39/39 [=====] - 0s 2ms/step - loss: 0.6344 - accuracy: 0.6537
Epoch 72/75
39/39 [=====] - 0s 2ms/step - loss: 0.6327 - accuracy: 0.6520
Epoch 73/75
39/39 [=====] - 0s 2ms/step - loss: 0.6318 - accuracy: 0.6537
Epoch 74/75
39/39 [=====] - 0s 2ms/step - loss: 0.6355 - accuracy: 0.6585
Epoch 75/75
39/39 [=====] - 0s 3ms/step - loss: 0.6346 - accuracy: 0.6602
10/10 [=====] - 0s 2ms/step - loss: 0.6490 - accuracy: 0.6601
Epoch 1/75
39/39 [=====] - 1s 2ms/step - loss: 2.4265 - accuracy: 0.5945
Epoch 2/75
39/39 [=====] - 0s 5ms/step - loss: 1.8034 - accuracy: 0.6417
Epoch 3/75
39/39 [=====] - 0s 4ms/step - loss: 1.6526 - accuracy: 0.6580
Epoch 4/75
39/39 [=====] - 0s 4ms/step - loss: 1.4843 - accuracy: 0.6710
Epoch 5/75
39/39 [=====] - 0s 4ms/step - loss: 1.3549 - accuracy: 0.6596
Epoch 6/75
39/39 [=====] - 0s 3ms/step - loss: 1.2513 - accuracy: 0.6547
Epoch 7/75
39/39 [=====] - 0s 4ms/step - loss: 1.1627 - accuracy: 0.6792
Epoch 8/75
39/39 [=====] - 0s 3ms/step - loss: 1.0866 - accuracy: 0.6792
Epoch 9/75
39/39 [=====] - 0s 4ms/step - loss: 1.0215 - accuracy: 0.6710
Epoch 10/75
39/39 [=====] - 0s 3ms/step - loss: 0.9618 - accuracy: 0.6808
Epoch 11/75

39/39 [=====] - 0s 3ms/step - loss: 0.9140 - accuracy: 0.6759
Epoch 12/75
39/39 [=====] - 0s 3ms/step - loss: 0.8714 - accuracy: 0.6678
Epoch 13/75
39/39 [=====] - 0s 3ms/step - loss: 0.8362 - accuracy: 0.6678
Epoch 14/75
39/39 [=====] - 0s 2ms/step - loss: 0.8099 - accuracy: 0.6612
Epoch 15/75
39/39 [=====] - 0s 3ms/step - loss: 0.7820 - accuracy: 0.6743
Epoch 16/75
39/39 [=====] - 0s 5ms/step - loss: 0.7665 - accuracy: 0.6743
Epoch 17/75
39/39 [=====] - 0s 2ms/step - loss: 0.7407 - accuracy: 0.6840
Epoch 18/75
39/39 [=====] - 0s 3ms/step - loss: 0.7264 - accuracy: 0.6759
Epoch 19/75
39/39 [=====] - 0s 2ms/step - loss: 0.7100 - accuracy: 0.6629
Epoch 20/75
39/39 [=====] - 0s 4ms/step - loss: 0.6964 - accuracy: 0.6661
Epoch 21/75
39/39 [=====] - 0s 3ms/step - loss: 0.6907 - accuracy: 0.6645
Epoch 22/75
39/39 [=====] - 0s 3ms/step - loss: 0.6784 - accuracy: 0.6873
Epoch 23/75
39/39 [=====] - 0s 2ms/step - loss: 0.6772 - accuracy: 0.6743
Epoch 24/75
39/39 [=====] - 0s 4ms/step - loss: 0.6664 - accuracy: 0.6906
Epoch 25/75
39/39 [=====] - 0s 3ms/step - loss: 0.6685 - accuracy: 0.6808
Epoch 26/75
39/39 [=====] - 0s 4ms/step - loss: 0.6528 - accuracy: 0.6954
Epoch 27/75
39/39 [=====] - 0s 3ms/step - loss: 0.6572 - accuracy: 0.7003
Epoch 28/75
39/39 [=====] - 0s 3ms/step - loss: 0.6459 - accuracy: 0.6938
Epoch 29/75
39/39 [=====] - 0s 3ms/step - loss: 0.6450 - accuracy: 0.6726
Epoch 30/75
39/39 [=====] - 0s 2ms/step - loss: 0.6341 - accuracy: 0.6857
Epoch 31/75
39/39 [=====] - 0s 3ms/step - loss: 0.6386 - accuracy: 0.6906
Epoch 32/75
39/39 [=====] - 0s 3ms/step - loss: 0.6457 - accuracy: 0.6726
Epoch 33/75
39/39 [=====] - 0s 2ms/step - loss: 0.6471 - accuracy: 0.6922
Epoch 34/75
39/39 [=====] - 0s 2ms/step - loss: 0.6346 - accuracy: 0.6824
Epoch 35/75
39/39 [=====] - 0s 2ms/step - loss: 0.6394 - accuracy: 0.6743
Epoch 36/75
39/39 [=====] - 0s 3ms/step - loss: 0.6319 - accuracy: 0.6922
Epoch 37/75
39/39 [=====] - 0s 4ms/step - loss: 0.6298 - accuracy: 0.6792
Epoch 38/75
39/39 [=====] - 0s 4ms/step - loss: 0.6332 - accuracy: 0.6954
Epoch 39/75
39/39 [=====] - 0s 3ms/step - loss: 0.6176 - accuracy: 0.6938
Epoch 40/75
39/39 [=====] - 0s 3ms/step - loss: 0.6258 - accuracy: 0.6906
Epoch 41/75
39/39 [=====] - 0s 3ms/step - loss: 0.6249 - accuracy: 0.6938
Epoch 42/75
39/39 [=====] - 0s 3ms/step - loss: 0.6299 - accuracy: 0.6857
Epoch 43/75
39/39 [=====] - 0s 4ms/step - loss: 0.6251 - accuracy: 0.7036
Epoch 44/75
39/39 [=====] - 0s 2ms/step - loss: 0.6238 - accuracy: 0.6938
Epoch 45/75
39/39 [=====] - 0s 5ms/step - loss: 0.6215 - accuracy: 0.7020
Epoch 46/75
39/39 [=====] - 0s 3ms/step - loss: 0.6197 - accuracy: 0.6808
Epoch 47/75
39/39 [=====] - 0s 2ms/step - loss: 0.6265 - accuracy: 0.6987
Epoch 48/75
39/39 [=====] - 0s 4ms/step - loss: 0.6216 - accuracy: 0.7052
Epoch 49/75
39/39 [=====] - 0s 3ms/step - loss: 0.6194 - accuracy: 0.6857
Epoch 50/75
39/39 [=====] - 0s 3ms/step - loss: 0.6229 - accuracy: 0.6743
Epoch 51/75
39/39 [=====] - 0s 2ms/step - loss: 0.6195 - accuracy: 0.6857
Epoch 52/75

39/39 [=====] - 0s 3ms/step - loss: 0.6290 - accuracy: 0.6906
Epoch 53/75
39/39 [=====] - 0s 3ms/step - loss: 0.6182 - accuracy: 0.6808
Epoch 54/75
39/39 [=====] - 0s 3ms/step - loss: 0.6169 - accuracy: 0.6840
Epoch 55/75
39/39 [=====] - 0s 3ms/step - loss: 0.6107 - accuracy: 0.7134
Epoch 56/75
39/39 [=====] - 0s 4ms/step - loss: 0.6149 - accuracy: 0.6971
Epoch 57/75
39/39 [=====] - 0s 3ms/step - loss: 0.6164 - accuracy: 0.6824
Epoch 58/75
39/39 [=====] - 0s 3ms/step - loss: 0.6171 - accuracy: 0.7036
Epoch 59/75
39/39 [=====] - 0s 2ms/step - loss: 0.6096 - accuracy: 0.6987
Epoch 60/75
39/39 [=====] - 0s 2ms/step - loss: 0.6196 - accuracy: 0.6938
Epoch 61/75
39/39 [=====] - 0s 3ms/step - loss: 0.6183 - accuracy: 0.6824
Epoch 62/75
39/39 [=====] - 0s 4ms/step - loss: 0.6138 - accuracy: 0.6824
Epoch 63/75
39/39 [=====] - 0s 3ms/step - loss: 0.6086 - accuracy: 0.6775
Epoch 64/75
39/39 [=====] - 0s 3ms/step - loss: 0.6162 - accuracy: 0.6808
Epoch 65/75
39/39 [=====] - 0s 3ms/step - loss: 0.6148 - accuracy: 0.6775
Epoch 66/75
39/39 [=====] - 0s 3ms/step - loss: 0.6157 - accuracy: 0.6873
Epoch 67/75
39/39 [=====] - 0s 3ms/step - loss: 0.6097 - accuracy: 0.7052
Epoch 68/75
39/39 [=====] - 0s 2ms/step - loss: 0.6126 - accuracy: 0.6824
Epoch 69/75
39/39 [=====] - 0s 3ms/step - loss: 0.6083 - accuracy: 0.7068
Epoch 70/75
39/39 [=====] - 0s 3ms/step - loss: 0.6114 - accuracy: 0.7003
Epoch 71/75
39/39 [=====] - 0s 3ms/step - loss: 0.6069 - accuracy: 0.7020
Epoch 72/75
39/39 [=====] - 0s 2ms/step - loss: 0.6023 - accuracy: 0.6792
Epoch 73/75
39/39 [=====] - 0s 3ms/step - loss: 0.6019 - accuracy: 0.7150
Epoch 74/75
39/39 [=====] - 0s 3ms/step - loss: 0.6122 - accuracy: 0.6889
Epoch 75/75
39/39 [=====] - 0s 4ms/step - loss: 0.6084 - accuracy: 0.6873
10/10 [=====] - 0s 1ms/step - loss: 0.6133 - accuracy: 0.6883
Epoch 1/75
39/39 [=====] - 0s 1ms/step - loss: 3.7851 - accuracy: 0.6515
Epoch 2/75
39/39 [=====] - 0s 2ms/step - loss: 1.7878 - accuracy: 0.6694
Epoch 3/75
39/39 [=====] - 0s 2ms/step - loss: 1.6198 - accuracy: 0.6678
Epoch 4/75
39/39 [=====] - 0s 3ms/step - loss: 1.4772 - accuracy: 0.6678
Epoch 5/75
39/39 [=====] - 0s 3ms/step - loss: 1.3546 - accuracy: 0.6678
Epoch 6/75
39/39 [=====] - 0s 3ms/step - loss: 1.2487 - accuracy: 0.6694
Epoch 7/75
39/39 [=====] - 0s 2ms/step - loss: 1.1587 - accuracy: 0.6661
Epoch 8/75
39/39 [=====] - 0s 3ms/step - loss: 1.0829 - accuracy: 0.6678
Epoch 9/75
39/39 [=====] - 0s 2ms/step - loss: 1.0137 - accuracy: 0.6694
Epoch 10/75
39/39 [=====] - 0s 2ms/step - loss: 0.9559 - accuracy: 0.6694
Epoch 11/75
39/39 [=====] - 0s 2ms/step - loss: 0.9084 - accuracy: 0.6710
Epoch 12/75
39/39 [=====] - 0s 2ms/step - loss: 0.8687 - accuracy: 0.6726
Epoch 13/75
39/39 [=====] - 0s 2ms/step - loss: 0.8303 - accuracy: 0.6726
Epoch 14/75
39/39 [=====] - 0s 2ms/step - loss: 0.8001 - accuracy: 0.6710
Epoch 15/75
39/39 [=====] - 0s 2ms/step - loss: 0.7741 - accuracy: 0.6726
Epoch 16/75
39/39 [=====] - 0s 3ms/step - loss: 0.7515 - accuracy: 0.6743
Epoch 17/75
39/39 [=====] - 0s 2ms/step - loss: 0.7334 - accuracy: 0.6678

Epoch 18/75
39/39 [=====] - 0s 2ms/step - loss: 0.7150 - accuracy: 0.6710
Epoch 19/75
39/39 [=====] - 0s 3ms/step - loss: 0.6990 - accuracy: 0.6743
Epoch 20/75
39/39 [=====] - 0s 2ms/step - loss: 0.6909 - accuracy: 0.6710
Epoch 21/75
39/39 [=====] - 0s 3ms/step - loss: 0.6810 - accuracy: 0.6661
Epoch 22/75
39/39 [=====] - 0s 2ms/step - loss: 0.6721 - accuracy: 0.6694
Epoch 23/75
39/39 [=====] - 0s 2ms/step - loss: 0.6762 - accuracy: 0.6678
Epoch 24/75
39/39 [=====] - 0s 3ms/step - loss: 0.6681 - accuracy: 0.6710
Epoch 25/75
39/39 [=====] - 0s 2ms/step - loss: 0.6578 - accuracy: 0.6759
Epoch 26/75
39/39 [=====] - 0s 2ms/step - loss: 0.6523 - accuracy: 0.6678
Epoch 27/75
39/39 [=====] - 0s 3ms/step - loss: 0.6454 - accuracy: 0.6808
Epoch 28/75
39/39 [=====] - 0s 2ms/step - loss: 0.6563 - accuracy: 0.6808
Epoch 29/75
39/39 [=====] - 0s 2ms/step - loss: 0.6420 - accuracy: 0.6759
Epoch 30/75
39/39 [=====] - 0s 2ms/step - loss: 0.6376 - accuracy: 0.6792
Epoch 31/75
39/39 [=====] - 0s 4ms/step - loss: 0.6191 - accuracy: 0.7101
Epoch 32/75
39/39 [=====] - 0s 4ms/step - loss: 0.6341 - accuracy: 0.6971
Epoch 33/75
39/39 [=====] - 0s 4ms/step - loss: 0.6271 - accuracy: 0.6987
Epoch 34/75
39/39 [=====] - 0s 3ms/step - loss: 0.6259 - accuracy: 0.6987
Epoch 35/75
39/39 [=====] - 0s 3ms/step - loss: 0.6219 - accuracy: 0.6987
Epoch 36/75
39/39 [=====] - 0s 3ms/step - loss: 0.6228 - accuracy: 0.6971
Epoch 37/75
39/39 [=====] - 0s 2ms/step - loss: 0.6212 - accuracy: 0.6922
Epoch 38/75
39/39 [=====] - 0s 4ms/step - loss: 0.6105 - accuracy: 0.6889
Epoch 39/75
39/39 [=====] - 0s 4ms/step - loss: 0.6091 - accuracy: 0.7150
Epoch 40/75
39/39 [=====] - 0s 3ms/step - loss: 0.6158 - accuracy: 0.7085
Epoch 41/75
39/39 [=====] - 0s 3ms/step - loss: 0.6074 - accuracy: 0.7052
Epoch 42/75
39/39 [=====] - 0s 3ms/step - loss: 0.6162 - accuracy: 0.6987
Epoch 43/75
39/39 [=====] - 0s 3ms/step - loss: 0.6163 - accuracy: 0.7101
Epoch 44/75
39/39 [=====] - 0s 4ms/step - loss: 0.6104 - accuracy: 0.7134
Epoch 45/75
39/39 [=====] - 0s 3ms/step - loss: 0.6116 - accuracy: 0.7020
Epoch 46/75
39/39 [=====] - 0s 2ms/step - loss: 0.6093 - accuracy: 0.7215
Epoch 47/75
39/39 [=====] - 0s 2ms/step - loss: 0.6165 - accuracy: 0.6987
Epoch 48/75
39/39 [=====] - 0s 3ms/step - loss: 0.5993 - accuracy: 0.7248
Epoch 49/75
39/39 [=====] - 0s 3ms/step - loss: 0.6203 - accuracy: 0.6743
Epoch 50/75
39/39 [=====] - 0s 3ms/step - loss: 0.6077 - accuracy: 0.7036
Epoch 51/75
39/39 [=====] - 0s 3ms/step - loss: 0.6066 - accuracy: 0.7134
Epoch 52/75
39/39 [=====] - 0s 3ms/step - loss: 0.6107 - accuracy: 0.6987
Epoch 53/75
39/39 [=====] - 0s 2ms/step - loss: 0.6026 - accuracy: 0.7036
Epoch 54/75
39/39 [=====] - 0s 3ms/step - loss: 0.6070 - accuracy: 0.6987
Epoch 55/75
39/39 [=====] - 0s 2ms/step - loss: 0.6063 - accuracy: 0.7085
Epoch 56/75
39/39 [=====] - 0s 3ms/step - loss: 0.6050 - accuracy: 0.7003
Epoch 57/75
39/39 [=====] - 0s 3ms/step - loss: 0.6110 - accuracy: 0.6938
Epoch 58/75
39/39 [=====] - 0s 4ms/step - loss: 0.6039 - accuracy: 0.7199

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Epoch 59/75
39/39 [=====] - 0s 2ms/step - loss: 0.6076 - accuracy: 0.7199
Epoch 60/75
39/39 [=====] - 0s 4ms/step - loss: 0.6050 - accuracy: 0.7068
Epoch 61/75
39/39 [=====] - 0s 2ms/step - loss: 0.6041 - accuracy: 0.7003
Epoch 62/75
39/39 [=====] - 0s 3ms/step - loss: 0.6039 - accuracy: 0.7068
Epoch 63/75
39/39 [=====] - 0s 2ms/step - loss: 0.6027 - accuracy: 0.7020
Epoch 64/75
39/39 [=====] - 0s 3ms/step - loss: 0.5956 - accuracy: 0.7068
Epoch 65/75
39/39 [=====] - 0s 2ms/step - loss: 0.5908 - accuracy: 0.7231
Epoch 66/75
39/39 [=====] - 0s 3ms/step - loss: 0.6070 - accuracy: 0.7182
Epoch 67/75
39/39 [=====] - 0s 4ms/step - loss: 0.5946 - accuracy: 0.7199
Epoch 68/75
39/39 [=====] - 0s 3ms/step - loss: 0.5975 - accuracy: 0.7068
Epoch 69/75
39/39 [=====] - 0s 3ms/step - loss: 0.6037 - accuracy: 0.7166
Epoch 70/75
39/39 [=====] - 0s 3ms/step - loss: 0.6021 - accuracy: 0.7101
Epoch 71/75
39/39 [=====] - 0s 2ms/step - loss: 0.5998 - accuracy: 0.6987
Epoch 72/75
39/39 [=====] - 0s 4ms/step - loss: 0.5965 - accuracy: 0.7020
Epoch 73/75
39/39 [=====] - 0s 4ms/step - loss: 0.5990 - accuracy: 0.7036
Epoch 74/75
39/39 [=====] - 0s 3ms/step - loss: 0.5957 - accuracy: 0.7215
Epoch 75/75
39/39 [=====] - 0s 3ms/step - loss: 0.5944 - accuracy: 0.7150
10/10 [=====] - 0s 1ms/step - loss: 0.6787 - accuracy: 0.6234
Epoch 1/75
39/39 [=====] - 1s 2ms/step - loss: 3.7254 - accuracy: 0.5586
Epoch 2/75
39/39 [=====] - 0s 3ms/step - loss: 1.7845 - accuracy: 0.6189
Epoch 3/75
39/39 [=====] - 0s 3ms/step - loss: 1.6157 - accuracy: 0.6564
Epoch 4/75
39/39 [=====] - 0s 3ms/step - loss: 1.4740 - accuracy: 0.6564
Epoch 5/75
39/39 [=====] - 0s 3ms/step - loss: 1.3545 - accuracy: 0.6564
Epoch 6/75
39/39 [=====] - 0s 2ms/step - loss: 1.2515 - accuracy: 0.6564
Epoch 7/75
39/39 [=====] - 0s 3ms/step - loss: 1.1623 - accuracy: 0.6564
Epoch 8/75
39/39 [=====] - 0s 3ms/step - loss: 1.0886 - accuracy: 0.6564
Epoch 9/75
39/39 [=====] - 0s 3ms/step - loss: 1.0223 - accuracy: 0.6564
Epoch 10/75
39/39 [=====] - 0s 4ms/step - loss: 0.9675 - accuracy: 0.6564
Epoch 11/75
39/39 [=====] - 0s 3ms/step - loss: 0.9197 - accuracy: 0.6564
Epoch 12/75
39/39 [=====] - 0s 4ms/step - loss: 0.8798 - accuracy: 0.6564
Epoch 13/75
39/39 [=====] - 0s 4ms/step - loss: 0.8448 - accuracy: 0.6564
Epoch 14/75
39/39 [=====] - 0s 3ms/step - loss: 0.8148 - accuracy: 0.6564
Epoch 15/75
39/39 [=====] - 0s 3ms/step - loss: 0.7879 - accuracy: 0.6564
Epoch 16/75
39/39 [=====] - 0s 3ms/step - loss: 0.7699 - accuracy: 0.6564
Epoch 17/75
39/39 [=====] - 0s 2ms/step - loss: 0.7490 - accuracy: 0.6564
Epoch 18/75
39/39 [=====] - 0s 4ms/step - loss: 0.7335 - accuracy: 0.6564
Epoch 19/75
39/39 [=====] - 0s 2ms/step - loss: 0.7189 - accuracy: 0.6564
Epoch 20/75
39/39 [=====] - 0s 4ms/step - loss: 0.7086 - accuracy: 0.6564
Epoch 21/75
39/39 [=====] - 0s 3ms/step - loss: 0.6987 - accuracy: 0.6564
Epoch 22/75
39/39 [=====] - 0s 3ms/step - loss: 0.6904 - accuracy: 0.6564
Epoch 23/75
39/39 [=====] - 0s 4ms/step - loss: 0.6826 - accuracy: 0.6564
Epoch 24/75
```


39/39 [=====] - 0s 4ms/step - loss: 0.6752 - accuracy: 0.6564
Epoch 25/75
39/39 [=====] - 0s 3ms/step - loss: 0.6700 - accuracy: 0.6564
Epoch 26/75
39/39 [=====] - 0s 2ms/step - loss: 0.6667 - accuracy: 0.6564
Epoch 27/75
39/39 [=====] - 0s 2ms/step - loss: 0.6609 - accuracy: 0.6564
Epoch 28/75
39/39 [=====] - 0s 2ms/step - loss: 0.6577 - accuracy: 0.6564
Epoch 29/75
39/39 [=====] - 0s 3ms/step - loss: 0.6555 - accuracy: 0.6564
Epoch 30/75
39/39 [=====] - 0s 3ms/step - loss: 0.6541 - accuracy: 0.6564
Epoch 31/75
39/39 [=====] - 0s 4ms/step - loss: 0.6528 - accuracy: 0.6564
Epoch 32/75
39/39 [=====] - 0s 3ms/step - loss: 0.6490 - accuracy: 0.6564
Epoch 33/75
39/39 [=====] - 0s 4ms/step - loss: 0.6481 - accuracy: 0.6564
Epoch 34/75
39/39 [=====] - 0s 2ms/step - loss: 0.6473 - accuracy: 0.6515
Epoch 35/75
39/39 [=====] - 0s 3ms/step - loss: 0.6322 - accuracy: 0.6743
Epoch 36/75
39/39 [=====] - 0s 2ms/step - loss: 0.6323 - accuracy: 0.6922
Epoch 37/75
39/39 [=====] - 0s 5ms/step - loss: 0.6364 - accuracy: 0.6759
Epoch 38/75
39/39 [=====] - 0s 4ms/step - loss: 0.6276 - accuracy: 0.6792
Epoch 39/75
39/39 [=====] - 0s 2ms/step - loss: 0.6375 - accuracy: 0.6694
Epoch 40/75
39/39 [=====] - 0s 3ms/step - loss: 0.6262 - accuracy: 0.6678
Epoch 41/75
39/39 [=====] - 0s 3ms/step - loss: 0.6282 - accuracy: 0.6938
Epoch 42/75
39/39 [=====] - 0s 2ms/step - loss: 0.6320 - accuracy: 0.6726
Epoch 43/75
39/39 [=====] - 0s 4ms/step - loss: 0.6253 - accuracy: 0.6938
Epoch 44/75
39/39 [=====] - 0s 4ms/step - loss: 0.6311 - accuracy: 0.6694
Epoch 45/75
39/39 [=====] - 0s 3ms/step - loss: 0.6228 - accuracy: 0.6759
Epoch 46/75
39/39 [=====] - 0s 3ms/step - loss: 0.6253 - accuracy: 0.6840
Epoch 47/75
39/39 [=====] - 0s 2ms/step - loss: 0.6236 - accuracy: 0.6889
Epoch 48/75
39/39 [=====] - 0s 3ms/step - loss: 0.6218 - accuracy: 0.6824
Epoch 49/75
39/39 [=====] - 0s 2ms/step - loss: 0.6237 - accuracy: 0.6922
Epoch 50/75
39/39 [=====] - 0s 3ms/step - loss: 0.6236 - accuracy: 0.7020
Epoch 51/75
39/39 [=====] - 0s 4ms/step - loss: 0.6208 - accuracy: 0.6824
Epoch 52/75
39/39 [=====] - 0s 3ms/step - loss: 0.6227 - accuracy: 0.6987
Epoch 53/75
39/39 [=====] - 0s 4ms/step - loss: 0.6276 - accuracy: 0.6824
Epoch 54/75
39/39 [=====] - 0s 4ms/step - loss: 0.6235 - accuracy: 0.6824
Epoch 55/75
39/39 [=====] - 0s 3ms/step - loss: 0.6187 - accuracy: 0.7003
Epoch 56/75
39/39 [=====] - 0s 3ms/step - loss: 0.6192 - accuracy: 0.6808
Epoch 57/75
39/39 [=====] - 0s 3ms/step - loss: 0.6230 - accuracy: 0.6775
Epoch 58/75
39/39 [=====] - 0s 3ms/step - loss: 0.6224 - accuracy: 0.6775
Epoch 59/75
39/39 [=====] - 0s 2ms/step - loss: 0.6094 - accuracy: 0.6808
Epoch 60/75
39/39 [=====] - 0s 2ms/step - loss: 0.6188 - accuracy: 0.6873
Epoch 61/75
39/39 [=====] - 0s 2ms/step - loss: 0.6192 - accuracy: 0.6922
Epoch 62/75
39/39 [=====] - 0s 2ms/step - loss: 0.6193 - accuracy: 0.6922
Epoch 63/75
39/39 [=====] - 0s 3ms/step - loss: 0.6156 - accuracy: 0.6808
Epoch 64/75
39/39 [=====] - 0s 3ms/step - loss: 0.6202 - accuracy: 0.6840
Epoch 65/75

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39/39 [=====] - 0s 4ms/step - loss: 0.6061 - accuracy: 0.7085
Epoch 66/75
39/39 [=====] - 0s 3ms/step - loss: 0.6142 - accuracy: 0.7020
Epoch 67/75
39/39 [=====] - 0s 4ms/step - loss: 0.6124 - accuracy: 0.6938
Epoch 68/75
39/39 [=====] - 0s 3ms/step - loss: 0.6121 - accuracy: 0.7003
Epoch 69/75
39/39 [=====] - 0s 3ms/step - loss: 0.6158 - accuracy: 0.6857
Epoch 70/75
39/39 [=====] - 0s 3ms/step - loss: 0.6126 - accuracy: 0.7003
Epoch 71/75
39/39 [=====] - 0s 3ms/step - loss: 0.6113 - accuracy: 0.6857
Epoch 72/75
39/39 [=====] - 0s 2ms/step - loss: 0.6107 - accuracy: 0.6889
Epoch 73/75
39/39 [=====] - 0s 2ms/step - loss: 0.6087 - accuracy: 0.6987
Epoch 74/75
39/39 [=====] - 0s 3ms/step - loss: 0.6215 - accuracy: 0.6906
Epoch 75/75
39/39 [=====] - 0s 2ms/step - loss: 0.6121 - accuracy: 0.6808
10/10 [=====] - 0s 2ms/step - loss: 0.6194 - accuracy: 0.7273
Epoch 1/75
39/39 [=====] - 0s 1ms/step - loss: 5.7422 - accuracy: 0.5496
Epoch 2/75
39/39 [=====] - 0s 1ms/step - loss: 1.9492 - accuracy: 0.5951
Epoch 3/75
39/39 [=====] - 0s 2ms/step - loss: 1.7531 - accuracy: 0.6130
Epoch 4/75
39/39 [=====] - 0s 4ms/step - loss: 1.5878 - accuracy: 0.6309
Epoch 5/75
39/39 [=====] - 0s 4ms/step - loss: 1.4469 - accuracy: 0.6472
Epoch 6/75
39/39 [=====] - 0s 3ms/step - loss: 1.3350 - accuracy: 0.6358
Epoch 7/75
39/39 [=====] - 0s 2ms/step - loss: 1.2334 - accuracy: 0.6569
Epoch 8/75
39/39 [=====] - 0s 5ms/step - loss: 1.1464 - accuracy: 0.6472
Epoch 9/75
39/39 [=====] - 0s 4ms/step - loss: 1.0758 - accuracy: 0.6520
Epoch 10/75
39/39 [=====] - 0s 4ms/step - loss: 1.0127 - accuracy: 0.6585
Epoch 11/75
39/39 [=====] - 0s 3ms/step - loss: 0.9582 - accuracy: 0.6602
Epoch 12/75
39/39 [=====] - 0s 3ms/step - loss: 0.9136 - accuracy: 0.6780
Epoch 13/75
39/39 [=====] - 0s 4ms/step - loss: 0.8719 - accuracy: 0.6667
Epoch 14/75
39/39 [=====] - 0s 2ms/step - loss: 0.8374 - accuracy: 0.6683
Epoch 15/75
39/39 [=====] - 0s 4ms/step - loss: 0.8054 - accuracy: 0.6618
Epoch 16/75
39/39 [=====] - 0s 5ms/step - loss: 0.7830 - accuracy: 0.6667
Epoch 17/75
39/39 [=====] - 0s 3ms/step - loss: 0.7611 - accuracy: 0.6585
Epoch 18/75
39/39 [=====] - 0s 3ms/step - loss: 0.7369 - accuracy: 0.6748
Epoch 19/75
39/39 [=====] - 0s 2ms/step - loss: 0.7230 - accuracy: 0.6520
Epoch 20/75
39/39 [=====] - 0s 3ms/step - loss: 0.7096 - accuracy: 0.6748
Epoch 21/75
39/39 [=====] - 0s 2ms/step - loss: 0.6904 - accuracy: 0.6602
Epoch 22/75
39/39 [=====] - 0s 3ms/step - loss: 0.6895 - accuracy: 0.6553
Epoch 23/75
39/39 [=====] - 0s 3ms/step - loss: 0.6732 - accuracy: 0.6683
Epoch 24/75
39/39 [=====] - 0s 2ms/step - loss: 0.6811 - accuracy: 0.6618
Epoch 25/75
39/39 [=====] - 0s 3ms/step - loss: 0.6682 - accuracy: 0.6764
Epoch 26/75
39/39 [=====] - 0s 3ms/step - loss: 0.6566 - accuracy: 0.6764
Epoch 27/75
39/39 [=====] - 0s 2ms/step - loss: 0.6540 - accuracy: 0.6797
Epoch 28/75
39/39 [=====] - 0s 4ms/step - loss: 0.6500 - accuracy: 0.6602
Epoch 29/75
39/39 [=====] - 0s 4ms/step - loss: 0.6412 - accuracy: 0.6699
Epoch 30/75
39/39 [=====] - 0s 3ms/step - loss: 0.6459 - accuracy: 0.6715
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Epoch 31/75
39/39 [=====] - 0s 3ms/step - loss: 0.6526 - accuracy: 0.6699
Epoch 32/75
39/39 [=====] - 0s 3ms/step - loss: 0.6382 - accuracy: 0.6943
Epoch 33/75
39/39 [=====] - 0s 3ms/step - loss: 0.6382 - accuracy: 0.6699
Epoch 34/75
39/39 [=====] - 0s 2ms/step - loss: 0.6343 - accuracy: 0.6894
Epoch 35/75
39/39 [=====] - 0s 2ms/step - loss: 0.6406 - accuracy: 0.6537
Epoch 36/75
39/39 [=====] - 0s 2ms/step - loss: 0.6405 - accuracy: 0.6764
Epoch 37/75
39/39 [=====] - 0s 3ms/step - loss: 0.6302 - accuracy: 0.6650
Epoch 38/75
39/39 [=====] - 0s 3ms/step - loss: 0.6377 - accuracy: 0.6683
Epoch 39/75
39/39 [=====] - 0s 2ms/step - loss: 0.6326 - accuracy: 0.6911
Epoch 40/75
39/39 [=====] - 0s 3ms/step - loss: 0.6306 - accuracy: 0.6715
Epoch 41/75
39/39 [=====] - 0s 2ms/step - loss: 0.6240 - accuracy: 0.6829
Epoch 42/75
39/39 [=====] - 0s 6ms/step - loss: 0.6214 - accuracy: 0.6813
Epoch 43/75
39/39 [=====] - 0s 3ms/step - loss: 0.6311 - accuracy: 0.6878
Epoch 44/75
39/39 [=====] - 0s 3ms/step - loss: 0.6245 - accuracy: 0.6829
Epoch 45/75
39/39 [=====] - 0s 3ms/step - loss: 0.6233 - accuracy: 0.6911
Epoch 46/75
39/39 [=====] - 0s 3ms/step - loss: 0.6254 - accuracy: 0.7024
Epoch 47/75
39/39 [=====] - 0s 3ms/step - loss: 0.6308 - accuracy: 0.6683
Epoch 48/75
39/39 [=====] - 0s 3ms/step - loss: 0.6246 - accuracy: 0.6732
Epoch 49/75
39/39 [=====] - 0s 3ms/step - loss: 0.6265 - accuracy: 0.6764
Epoch 50/75
39/39 [=====] - 0s 3ms/step - loss: 0.6227 - accuracy: 0.6780
Epoch 51/75
39/39 [=====] - 0s 3ms/step - loss: 0.6209 - accuracy: 0.6748
Epoch 52/75
39/39 [=====] - 0s 3ms/step - loss: 0.6180 - accuracy: 0.6780
Epoch 53/75
39/39 [=====] - 0s 3ms/step - loss: 0.6122 - accuracy: 0.6829
Epoch 54/75
39/39 [=====] - 0s 4ms/step - loss: 0.6207 - accuracy: 0.6829
Epoch 55/75
39/39 [=====] - 0s 2ms/step - loss: 0.6203 - accuracy: 0.6943
Epoch 56/75
39/39 [=====] - 0s 3ms/step - loss: 0.6180 - accuracy: 0.6878
Epoch 57/75
39/39 [=====] - 0s 2ms/step - loss: 0.6243 - accuracy: 0.6829
Epoch 58/75
39/39 [=====] - 0s 3ms/step - loss: 0.6220 - accuracy: 0.6602
Epoch 59/75
39/39 [=====] - 0s 3ms/step - loss: 0.6131 - accuracy: 0.7089
Epoch 60/75
39/39 [=====] - 0s 4ms/step - loss: 0.6291 - accuracy: 0.6764
Epoch 61/75
39/39 [=====] - 0s 2ms/step - loss: 0.6315 - accuracy: 0.6797
Epoch 62/75
39/39 [=====] - 0s 3ms/step - loss: 0.6206 - accuracy: 0.6927
Epoch 63/75
39/39 [=====] - 0s 2ms/step - loss: 0.6206 - accuracy: 0.6813
Epoch 64/75
39/39 [=====] - 0s 3ms/step - loss: 0.6167 - accuracy: 0.6813
Epoch 65/75
39/39 [=====] - 0s 2ms/step - loss: 0.6199 - accuracy: 0.6748
Epoch 66/75
39/39 [=====] - 0s 3ms/step - loss: 0.6213 - accuracy: 0.6878
Epoch 67/75
39/39 [=====] - 0s 2ms/step - loss: 0.6247 - accuracy: 0.6683
Epoch 68/75
39/39 [=====] - 0s 5ms/step - loss: 0.6165 - accuracy: 0.6927
Epoch 69/75
39/39 [=====] - 0s 3ms/step - loss: 0.6119 - accuracy: 0.6846
Epoch 70/75
39/39 [=====] - 0s 3ms/step - loss: 0.6269 - accuracy: 0.6488
Epoch 71/75
39/39 [=====] - 0s 3ms/step - loss: 0.6188 - accuracy: 0.6829
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Epoch 72/75
39/39 [=====] - 0s 3ms/step - loss: 0.6228 - accuracy: 0.6878
Epoch 73/75
39/39 [=====] - 0s 3ms/step - loss: 0.6229 - accuracy: 0.6715
Epoch 74/75
39/39 [=====] - 0s 3ms/step - loss: 0.6175 - accuracy: 0.6732
Epoch 75/75
39/39 [=====] - 0s 2ms/step - loss: 0.6254 - accuracy: 0.6813
10/10 [=====] - 0s 1ms/step - loss: 0.5472 - accuracy: 0.7778
Epoch 1/75
39/39 [=====] - 0s 2ms/step - loss: 3.1826 - accuracy: 0.6146
Epoch 2/75
39/39 [=====] - 0s 3ms/step - loss: 1.8797 - accuracy: 0.6390
Epoch 3/75
39/39 [=====] - 0s 3ms/step - loss: 1.6902 - accuracy: 0.6472
Epoch 4/75
39/39 [=====] - 0s 2ms/step - loss: 1.5326 - accuracy: 0.6488
Epoch 5/75
39/39 [=====] - 0s 4ms/step - loss: 1.3942 - accuracy: 0.6407
Epoch 6/75
39/39 [=====] - 0s 3ms/step - loss: 1.2839 - accuracy: 0.6699
Epoch 7/75
39/39 [=====] - 0s 2ms/step - loss: 1.1950 - accuracy: 0.6537
Epoch 8/75
39/39 [=====] - 0s 4ms/step - loss: 1.1078 - accuracy: 0.6520
Epoch 9/75
39/39 [=====] - 0s 3ms/step - loss: 1.0425 - accuracy: 0.6537
Epoch 10/75
39/39 [=====] - 0s 3ms/step - loss: 0.9816 - accuracy: 0.6634
Epoch 11/75
39/39 [=====] - 0s 3ms/step - loss: 0.9264 - accuracy: 0.6683
Epoch 12/75
39/39 [=====] - 0s 2ms/step - loss: 0.8786 - accuracy: 0.6927
Epoch 13/75
39/39 [=====] - 0s 4ms/step - loss: 0.8398 - accuracy: 0.6553
Epoch 14/75
39/39 [=====] - 0s 3ms/step - loss: 0.8117 - accuracy: 0.6797
Epoch 15/75
39/39 [=====] - 0s 4ms/step - loss: 0.7847 - accuracy: 0.6602
Epoch 16/75
39/39 [=====] - 0s 3ms/step - loss: 0.7629 - accuracy: 0.6602
Epoch 17/75
39/39 [=====] - 0s 2ms/step - loss: 0.7443 - accuracy: 0.6602
Epoch 18/75
39/39 [=====] - 0s 3ms/step - loss: 0.7214 - accuracy: 0.6699
Epoch 19/75
39/39 [=====] - 0s 3ms/step - loss: 0.7201 - accuracy: 0.6894
Epoch 20/75
39/39 [=====] - 0s 2ms/step - loss: 0.6976 - accuracy: 0.6748
Epoch 21/75
39/39 [=====] - 0s 2ms/step - loss: 0.6921 - accuracy: 0.6911
Epoch 22/75
39/39 [=====] - 0s 3ms/step - loss: 0.6812 - accuracy: 0.6602
Epoch 23/75
39/39 [=====] - 0s 3ms/step - loss: 0.6721 - accuracy: 0.6715
Epoch 24/75
39/39 [=====] - 0s 4ms/step - loss: 0.6640 - accuracy: 0.6780
Epoch 25/75
39/39 [=====] - 0s 4ms/step - loss: 0.6555 - accuracy: 0.6764
Epoch 26/75
39/39 [=====] - 0s 3ms/step - loss: 0.6475 - accuracy: 0.6732
Epoch 27/75
39/39 [=====] - 0s 2ms/step - loss: 0.6473 - accuracy: 0.6894
Epoch 28/75
39/39 [=====] - 0s 2ms/step - loss: 0.6444 - accuracy: 0.6911
Epoch 29/75
39/39 [=====] - 0s 2ms/step - loss: 0.6400 - accuracy: 0.6813
Epoch 30/75
39/39 [=====] - 0s 5ms/step - loss: 0.6359 - accuracy: 0.6992
Epoch 31/75
39/39 [=====] - 0s 4ms/step - loss: 0.6340 - accuracy: 0.6846
Epoch 32/75
39/39 [=====] - 0s 5ms/step - loss: 0.6338 - accuracy: 0.6846
Epoch 33/75
39/39 [=====] - 0s 3ms/step - loss: 0.6402 - accuracy: 0.6634
Epoch 34/75
39/39 [=====] - 0s 3ms/step - loss: 0.6338 - accuracy: 0.6748
Epoch 35/75
39/39 [=====] - 0s 2ms/step - loss: 0.6198 - accuracy: 0.6797
Epoch 36/75
39/39 [=====] - 0s 3ms/step - loss: 0.6270 - accuracy: 0.6764
Epoch 37/75
```

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39/39 [=====] - 0s 2ms/step - loss: 0.6237 - accuracy: 0.6846
Epoch 38/75
39/39 [=====] - 0s 3ms/step - loss: 0.6297 - accuracy: 0.6894
Epoch 39/75
39/39 [=====] - 0s 2ms/step - loss: 0.6281 - accuracy: 0.6829
Epoch 40/75
39/39 [=====] - 0s 2ms/step - loss: 0.6198 - accuracy: 0.6797
Epoch 41/75
39/39 [=====] - 0s 3ms/step - loss: 0.6215 - accuracy: 0.6780
Epoch 42/75
39/39 [=====] - 0s 2ms/step - loss: 0.6206 - accuracy: 0.6813
Epoch 43/75
39/39 [=====] - 0s 3ms/step - loss: 0.6129 - accuracy: 0.7041
Epoch 44/75
39/39 [=====] - 0s 3ms/step - loss: 0.6192 - accuracy: 0.6878
Epoch 45/75
39/39 [=====] - 0s 3ms/step - loss: 0.6147 - accuracy: 0.6959
Epoch 46/75
39/39 [=====] - 0s 3ms/step - loss: 0.6197 - accuracy: 0.6764
Epoch 47/75
39/39 [=====] - 0s 3ms/step - loss: 0.6165 - accuracy: 0.6976
Epoch 48/75
39/39 [=====] - 0s 3ms/step - loss: 0.6107 - accuracy: 0.6927
Epoch 49/75
39/39 [=====] - 0s 3ms/step - loss: 0.6175 - accuracy: 0.6829
Epoch 50/75
39/39 [=====] - 0s 3ms/step - loss: 0.6194 - accuracy: 0.6976
Epoch 51/75
39/39 [=====] - 0s 3ms/step - loss: 0.6149 - accuracy: 0.7024
Epoch 52/75
39/39 [=====] - 0s 2ms/step - loss: 0.6139 - accuracy: 0.6976
Epoch 53/75
39/39 [=====] - 0s 3ms/step - loss: 0.6085 - accuracy: 0.7220
Epoch 54/75
39/39 [=====] - 0s 2ms/step - loss: 0.6102 - accuracy: 0.6959
Epoch 55/75
39/39 [=====] - 0s 4ms/step - loss: 0.6174 - accuracy: 0.6829
Epoch 56/75
39/39 [=====] - 0s 2ms/step - loss: 0.6170 - accuracy: 0.6813
Epoch 57/75
39/39 [=====] - 0s 4ms/step - loss: 0.6188 - accuracy: 0.6927
Epoch 58/75
39/39 [=====] - 0s 3ms/step - loss: 0.6059 - accuracy: 0.7106
Epoch 59/75
39/39 [=====] - 0s 6ms/step - loss: 0.6043 - accuracy: 0.6976
Epoch 60/75
39/39 [=====] - 0s 4ms/step - loss: 0.6103 - accuracy: 0.6846
Epoch 61/75
39/39 [=====] - 0s 4ms/step - loss: 0.6050 - accuracy: 0.6992
Epoch 62/75
39/39 [=====] - 0s 3ms/step - loss: 0.6118 - accuracy: 0.6992
Epoch 63/75
39/39 [=====] - 0s 4ms/step - loss: 0.6085 - accuracy: 0.7008
Epoch 64/75
39/39 [=====] - 0s 4ms/step - loss: 0.6032 - accuracy: 0.6976
Epoch 65/75
39/39 [=====] - 0s 4ms/step - loss: 0.6037 - accuracy: 0.7089
Epoch 66/75
39/39 [=====] - 0s 3ms/step - loss: 0.6057 - accuracy: 0.6959
Epoch 67/75
39/39 [=====] - 0s 3ms/step - loss: 0.6073 - accuracy: 0.7089
Epoch 68/75
39/39 [=====] - 0s 2ms/step - loss: 0.6121 - accuracy: 0.6878
Epoch 69/75
39/39 [=====] - 0s 3ms/step - loss: 0.6054 - accuracy: 0.7122
Epoch 70/75
39/39 [=====] - 0s 2ms/step - loss: 0.6047 - accuracy: 0.6943
Epoch 71/75
39/39 [=====] - 0s 2ms/step - loss: 0.6039 - accuracy: 0.7041
Epoch 72/75
39/39 [=====] - 0s 3ms/step - loss: 0.5980 - accuracy: 0.7057
Epoch 73/75
39/39 [=====] - 0s 3ms/step - loss: 0.5988 - accuracy: 0.7154
Epoch 74/75
39/39 [=====] - 0s 2ms/step - loss: 0.6031 - accuracy: 0.6911
Epoch 75/75
39/39 [=====] - 0s 2ms/step - loss: 0.5994 - accuracy: 0.6943
10/10 [=====] - 0s 1ms/step - loss: 0.6209 - accuracy: 0.6732
Epoch 1/100
39/39 [=====] - 0s 1ms/step - loss: 2.3027 - accuracy: 0.5586
Epoch 2/100
39/39 [=====] - 0s 1ms/step - loss: 0.8554 - accuracy: 0.6238
```

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Epoch 3/100
39/39 [=====] - 0s 1ms/step - loss: 0.8132 - accuracy: 0.6596
Epoch 4/100
39/39 [=====] - 0s 2ms/step - loss: 0.8063 - accuracy: 0.6596
Epoch 5/100
39/39 [=====] - 0s 2ms/step - loss: 0.7908 - accuracy: 0.6759
Epoch 6/100
39/39 [=====] - 0s 2ms/step - loss: 0.7898 - accuracy: 0.6531
Epoch 7/100
39/39 [=====] - 0s 3ms/step - loss: 0.7755 - accuracy: 0.6824
Epoch 8/100
39/39 [=====] - 0s 3ms/step - loss: 0.7723 - accuracy: 0.6612
Epoch 9/100
39/39 [=====] - 0s 3ms/step - loss: 0.7701 - accuracy: 0.6498
Epoch 10/100
39/39 [=====] - 0s 2ms/step - loss: 0.7642 - accuracy: 0.6629
Epoch 11/100
39/39 [=====] - 0s 3ms/step - loss: 0.7625 - accuracy: 0.6710
Epoch 12/100
39/39 [=====] - 0s 4ms/step - loss: 0.7594 - accuracy: 0.6612
Epoch 13/100
39/39 [=====] - 0s 3ms/step - loss: 0.7480 - accuracy: 0.6824
Epoch 14/100
39/39 [=====] - 0s 2ms/step - loss: 0.7465 - accuracy: 0.6759
Epoch 15/100
39/39 [=====] - 0s 2ms/step - loss: 0.7438 - accuracy: 0.6726
Epoch 16/100
39/39 [=====] - 0s 3ms/step - loss: 0.7376 - accuracy: 0.6824
Epoch 17/100
39/39 [=====] - 0s 2ms/step - loss: 0.7339 - accuracy: 0.6710
Epoch 18/100
39/39 [=====] - 0s 3ms/step - loss: 0.7289 - accuracy: 0.6824
Epoch 19/100
39/39 [=====] - 0s 2ms/step - loss: 0.7268 - accuracy: 0.6873
Epoch 20/100
39/39 [=====] - 0s 2ms/step - loss: 0.7173 - accuracy: 0.6906
Epoch 21/100
39/39 [=====] - 0s 2ms/step - loss: 0.7152 - accuracy: 0.6808
Epoch 22/100
39/39 [=====] - 0s 2ms/step - loss: 0.7084 - accuracy: 0.6840
Epoch 23/100
39/39 [=====] - 0s 2ms/step - loss: 0.7075 - accuracy: 0.6808
Epoch 24/100
39/39 [=====] - 0s 3ms/step - loss: 0.7033 - accuracy: 0.6873
Epoch 25/100
39/39 [=====] - 0s 4ms/step - loss: 0.7042 - accuracy: 0.6873
Epoch 26/100
39/39 [=====] - 0s 2ms/step - loss: 0.7019 - accuracy: 0.6824
Epoch 27/100
39/39 [=====] - 0s 4ms/step - loss: 0.6992 - accuracy: 0.6792
Epoch 28/100
39/39 [=====] - 0s 3ms/step - loss: 0.6967 - accuracy: 0.6726
Epoch 29/100
39/39 [=====] - 0s 2ms/step - loss: 0.6970 - accuracy: 0.6775
Epoch 30/100
39/39 [=====] - 0s 2ms/step - loss: 0.6987 - accuracy: 0.6808
Epoch 31/100
39/39 [=====] - 0s 3ms/step - loss: 0.6903 - accuracy: 0.6775
Epoch 32/100
39/39 [=====] - 0s 3ms/step - loss: 0.6896 - accuracy: 0.6857
Epoch 33/100
39/39 [=====] - 0s 2ms/step - loss: 0.6931 - accuracy: 0.6743
Epoch 34/100
39/39 [=====] - 0s 2ms/step - loss: 0.6845 - accuracy: 0.6857
Epoch 35/100
39/39 [=====] - 0s 4ms/step - loss: 0.6826 - accuracy: 0.6808
Epoch 36/100
39/39 [=====] - 0s 3ms/step - loss: 0.6872 - accuracy: 0.6775
Epoch 37/100
39/39 [=====] - 0s 3ms/step - loss: 0.6796 - accuracy: 0.6906
Epoch 38/100
39/39 [=====] - 0s 2ms/step - loss: 0.6762 - accuracy: 0.6938
Epoch 39/100
39/39 [=====] - 0s 3ms/step - loss: 0.6792 - accuracy: 0.6792
Epoch 40/100
39/39 [=====] - 0s 4ms/step - loss: 0.6762 - accuracy: 0.6824
Epoch 41/100
39/39 [=====] - 0s 6ms/step - loss: 0.6807 - accuracy: 0.6840
Epoch 42/100
39/39 [=====] - 0s 3ms/step - loss: 0.6764 - accuracy: 0.6840
Epoch 43/100
39/39 [=====] - 0s 3ms/step - loss: 0.6741 - accuracy: 0.6906
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Epoch 44/100
39/39 [=====] - 0s 4ms/step - loss: 0.6728 - accuracy: 0.6873
Epoch 45/100
39/39 [=====] - 0s 4ms/step - loss: 0.6670 - accuracy: 0.6824
Epoch 46/100
39/39 [=====] - 0s 3ms/step - loss: 0.6695 - accuracy: 0.6922
Epoch 47/100
39/39 [=====] - 0s 3ms/step - loss: 0.6714 - accuracy: 0.6922
Epoch 48/100
39/39 [=====] - 0s 5ms/step - loss: 0.6593 - accuracy: 0.6954
Epoch 49/100
39/39 [=====] - 0s 4ms/step - loss: 0.6746 - accuracy: 0.6954
Epoch 50/100
39/39 [=====] - 0s 4ms/step - loss: 0.6623 - accuracy: 0.6857
Epoch 51/100
39/39 [=====] - 0s 3ms/step - loss: 0.6571 - accuracy: 0.6889
Epoch 52/100
39/39 [=====] - 0s 4ms/step - loss: 0.6572 - accuracy: 0.7020
Epoch 53/100
39/39 [=====] - 0s 3ms/step - loss: 0.6695 - accuracy: 0.6857
Epoch 54/100
39/39 [=====] - 0s 3ms/step - loss: 0.6607 - accuracy: 0.6824
Epoch 55/100
39/39 [=====] - 0s 2ms/step - loss: 0.6547 - accuracy: 0.6954
Epoch 56/100
39/39 [=====] - 0s 2ms/step - loss: 0.6583 - accuracy: 0.6906
Epoch 57/100
39/39 [=====] - 0s 4ms/step - loss: 0.6554 - accuracy: 0.6954
Epoch 58/100
39/39 [=====] - 0s 3ms/step - loss: 0.6514 - accuracy: 0.6987
Epoch 59/100
39/39 [=====] - 0s 2ms/step - loss: 0.6581 - accuracy: 0.6889
Epoch 60/100
39/39 [=====] - 0s 3ms/step - loss: 0.6537 - accuracy: 0.6889
Epoch 61/100
39/39 [=====] - 0s 4ms/step - loss: 0.6502 - accuracy: 0.6954
Epoch 62/100
39/39 [=====] - 0s 3ms/step - loss: 0.6482 - accuracy: 0.6938
Epoch 63/100
39/39 [=====] - 0s 3ms/step - loss: 0.6454 - accuracy: 0.6971
Epoch 64/100
39/39 [=====] - 0s 3ms/step - loss: 0.6485 - accuracy: 0.6938
Epoch 65/100
39/39 [=====] - 0s 3ms/step - loss: 0.6534 - accuracy: 0.6873
Epoch 66/100
39/39 [=====] - 0s 3ms/step - loss: 0.6459 - accuracy: 0.6889
Epoch 67/100
39/39 [=====] - 0s 2ms/step - loss: 0.6534 - accuracy: 0.6889
Epoch 68/100
39/39 [=====] - 0s 3ms/step - loss: 0.6416 - accuracy: 0.7003
Epoch 69/100
39/39 [=====] - 0s 2ms/step - loss: 0.6451 - accuracy: 0.7052
Epoch 70/100
39/39 [=====] - 0s 2ms/step - loss: 0.6460 - accuracy: 0.6889
Epoch 71/100
39/39 [=====] - 0s 3ms/step - loss: 0.6476 - accuracy: 0.6889
Epoch 72/100
39/39 [=====] - 0s 2ms/step - loss: 0.6424 - accuracy: 0.6987
Epoch 73/100
39/39 [=====] - 0s 2ms/step - loss: 0.6426 - accuracy: 0.7020
Epoch 74/100
39/39 [=====] - 0s 2ms/step - loss: 0.6403 - accuracy: 0.6954
Epoch 75/100
39/39 [=====] - 0s 4ms/step - loss: 0.6488 - accuracy: 0.6840
Epoch 76/100
39/39 [=====] - 0s 5ms/step - loss: 0.6344 - accuracy: 0.6938
Epoch 77/100
39/39 [=====] - 0s 3ms/step - loss: 0.6364 - accuracy: 0.6971
Epoch 78/100
39/39 [=====] - 0s 4ms/step - loss: 0.6312 - accuracy: 0.7052
Epoch 79/100
39/39 [=====] - 0s 3ms/step - loss: 0.6446 - accuracy: 0.6824
Epoch 80/100
39/39 [=====] - 0s 3ms/step - loss: 0.6360 - accuracy: 0.6987
Epoch 81/100
39/39 [=====] - 0s 2ms/step - loss: 0.6350 - accuracy: 0.6889
Epoch 82/100
39/39 [=====] - 0s 3ms/step - loss: 0.6392 - accuracy: 0.6873
Epoch 83/100
39/39 [=====] - 0s 4ms/step - loss: 0.6373 - accuracy: 0.6873
Epoch 84/100
39/39 [=====] - 0s 3ms/step - loss: 0.6340 - accuracy: 0.6971

Epoch 85/100
39/39 [=====] - 0s 4ms/step - loss: 0.6364 - accuracy: 0.7036
Epoch 86/100
39/39 [=====] - 0s 2ms/step - loss: 0.6407 - accuracy: 0.6792
Epoch 87/100
39/39 [=====] - 0s 3ms/step - loss: 0.6348 - accuracy: 0.6906
Epoch 88/100
39/39 [=====] - 0s 2ms/step - loss: 0.6299 - accuracy: 0.6889
Epoch 89/100
39/39 [=====] - 0s 4ms/step - loss: 0.6334 - accuracy: 0.6971
Epoch 90/100
39/39 [=====] - 0s 2ms/step - loss: 0.6307 - accuracy: 0.6922
Epoch 91/100
39/39 [=====] - 0s 2ms/step - loss: 0.6277 - accuracy: 0.6971
Epoch 92/100
39/39 [=====] - 0s 3ms/step - loss: 0.6249 - accuracy: 0.7020
Epoch 93/100
39/39 [=====] - 0s 3ms/step - loss: 0.6334 - accuracy: 0.6938
Epoch 94/100
39/39 [=====] - 0s 2ms/step - loss: 0.6289 - accuracy: 0.6954
Epoch 95/100
39/39 [=====] - 0s 3ms/step - loss: 0.6375 - accuracy: 0.6987
Epoch 96/100
39/39 [=====] - 0s 2ms/step - loss: 0.6268 - accuracy: 0.6987
Epoch 97/100
39/39 [=====] - 0s 3ms/step - loss: 0.6323 - accuracy: 0.7003
Epoch 98/100
39/39 [=====] - 0s 2ms/step - loss: 0.6286 - accuracy: 0.7036
Epoch 99/100
39/39 [=====] - 0s 3ms/step - loss: 0.6286 - accuracy: 0.6922
Epoch 100/100
39/39 [=====] - 0s 2ms/step - loss: 0.6248 - accuracy: 0.7085
10/10 [=====] - 0s 2ms/step - loss: 0.7001 - accuracy: 0.5974
Epoch 1/100
39/39 [=====] - 1s 2ms/step - loss: 2.8229 - accuracy: 0.5993
Epoch 2/100
39/39 [=====] - 0s 2ms/step - loss: 0.8501 - accuracy: 0.6515
Epoch 3/100
39/39 [=====] - 0s 2ms/step - loss: 0.7888 - accuracy: 0.6726
Epoch 4/100
39/39 [=====] - 0s 2ms/step - loss: 0.7774 - accuracy: 0.6792
Epoch 5/100
39/39 [=====] - 0s 2ms/step - loss: 0.7748 - accuracy: 0.6873
Epoch 6/100
39/39 [=====] - 0s 3ms/step - loss: 0.7414 - accuracy: 0.6792
Epoch 7/100
39/39 [=====] - 0s 3ms/step - loss: 0.7481 - accuracy: 0.6873
Epoch 8/100
39/39 [=====] - 0s 3ms/step - loss: 0.7351 - accuracy: 0.6938
Epoch 9/100
39/39 [=====] - 0s 2ms/step - loss: 0.7394 - accuracy: 0.6906
Epoch 10/100
39/39 [=====] - 0s 3ms/step - loss: 0.7239 - accuracy: 0.6775
Epoch 11/100
39/39 [=====] - 0s 2ms/step - loss: 0.7244 - accuracy: 0.6824
Epoch 12/100
39/39 [=====] - 0s 3ms/step - loss: 0.7245 - accuracy: 0.6759
Epoch 13/100
39/39 [=====] - 0s 3ms/step - loss: 0.7135 - accuracy: 0.6726
Epoch 14/100
39/39 [=====] - 0s 3ms/step - loss: 0.7137 - accuracy: 0.6808
Epoch 15/100
39/39 [=====] - 0s 3ms/step - loss: 0.7100 - accuracy: 0.6759
Epoch 16/100
39/39 [=====] - 0s 3ms/step - loss: 0.7079 - accuracy: 0.6726
Epoch 17/100
39/39 [=====] - 0s 2ms/step - loss: 0.7111 - accuracy: 0.6873
Epoch 18/100
39/39 [=====] - 0s 3ms/step - loss: 0.7042 - accuracy: 0.6824
Epoch 19/100
39/39 [=====] - 0s 2ms/step - loss: 0.7125 - accuracy: 0.6906
Epoch 20/100
39/39 [=====] - 0s 3ms/step - loss: 0.6937 - accuracy: 0.7036
Epoch 21/100
39/39 [=====] - 0s 2ms/step - loss: 0.7026 - accuracy: 0.6938
Epoch 22/100
39/39 [=====] - 0s 2ms/step - loss: 0.6885 - accuracy: 0.6775
Epoch 23/100
39/39 [=====] - 0s 2ms/step - loss: 0.6833 - accuracy: 0.6824
Epoch 24/100
39/39 [=====] - 0s 2ms/step - loss: 0.7035 - accuracy: 0.6792
Epoch 25/100

39/39 [=====] - 0s 2ms/step - loss: 0.6923 - accuracy: 0.6857
Epoch 26/100
39/39 [=====] - 0s 2ms/step - loss: 0.6977 - accuracy: 0.6792
Epoch 27/100
39/39 [=====] - 0s 3ms/step - loss: 0.6891 - accuracy: 0.6873
Epoch 28/100
39/39 [=====] - 0s 3ms/step - loss: 0.6858 - accuracy: 0.6808
Epoch 29/100
39/39 [=====] - 0s 3ms/step - loss: 0.6920 - accuracy: 0.6792
Epoch 30/100
39/39 [=====] - 0s 2ms/step - loss: 0.6827 - accuracy: 0.6840
Epoch 31/100
39/39 [=====] - 0s 3ms/step - loss: 0.6753 - accuracy: 0.6873
Epoch 32/100
39/39 [=====] - 0s 2ms/step - loss: 0.6815 - accuracy: 0.6808
Epoch 33/100
39/39 [=====] - 0s 2ms/step - loss: 0.6820 - accuracy: 0.6808
Epoch 34/100
39/39 [=====] - 0s 2ms/step - loss: 0.6747 - accuracy: 0.6906
Epoch 35/100
39/39 [=====] - 0s 2ms/step - loss: 0.6717 - accuracy: 0.6987
Epoch 36/100
39/39 [=====] - 0s 2ms/step - loss: 0.6787 - accuracy: 0.6906
Epoch 37/100
39/39 [=====] - 0s 2ms/step - loss: 0.6711 - accuracy: 0.6840
Epoch 38/100
39/39 [=====] - 0s 3ms/step - loss: 0.6774 - accuracy: 0.6840
Epoch 39/100
39/39 [=====] - 0s 2ms/step - loss: 0.6717 - accuracy: 0.6889
Epoch 40/100
39/39 [=====] - 0s 3ms/step - loss: 0.6825 - accuracy: 0.6726
Epoch 41/100
39/39 [=====] - 0s 2ms/step - loss: 0.6764 - accuracy: 0.6824
Epoch 42/100
39/39 [=====] - 0s 3ms/step - loss: 0.6674 - accuracy: 0.6840
Epoch 43/100
39/39 [=====] - 0s 3ms/step - loss: 0.6640 - accuracy: 0.6954
Epoch 44/100
39/39 [=====] - 0s 4ms/step - loss: 0.6695 - accuracy: 0.6954
Epoch 45/100
39/39 [=====] - 0s 2ms/step - loss: 0.6630 - accuracy: 0.6987
Epoch 46/100
39/39 [=====] - 0s 3ms/step - loss: 0.6604 - accuracy: 0.6906
Epoch 47/100
39/39 [=====] - 0s 2ms/step - loss: 0.6683 - accuracy: 0.6840
Epoch 48/100
39/39 [=====] - 0s 3ms/step - loss: 0.6631 - accuracy: 0.6971
Epoch 49/100
39/39 [=====] - 0s 2ms/step - loss: 0.6581 - accuracy: 0.6873
Epoch 50/100
39/39 [=====] - 0s 2ms/step - loss: 0.6577 - accuracy: 0.6954
Epoch 51/100
39/39 [=====] - 0s 4ms/step - loss: 0.6575 - accuracy: 0.6889
Epoch 52/100
39/39 [=====] - 0s 3ms/step - loss: 0.6585 - accuracy: 0.6906
Epoch 53/100
39/39 [=====] - 0s 4ms/step - loss: 0.6540 - accuracy: 0.7020
Epoch 54/100
39/39 [=====] - 0s 5ms/step - loss: 0.6552 - accuracy: 0.7003
Epoch 55/100
39/39 [=====] - 0s 4ms/step - loss: 0.6447 - accuracy: 0.7101
Epoch 56/100
39/39 [=====] - 0s 5ms/step - loss: 0.6498 - accuracy: 0.6889
Epoch 57/100
39/39 [=====] - 0s 3ms/step - loss: 0.6523 - accuracy: 0.6889
Epoch 58/100
39/39 [=====] - 0s 5ms/step - loss: 0.6532 - accuracy: 0.6906
Epoch 59/100
39/39 [=====] - 0s 5ms/step - loss: 0.6479 - accuracy: 0.7003
Epoch 60/100
39/39 [=====] - 0s 5ms/step - loss: 0.6407 - accuracy: 0.6971
Epoch 61/100
39/39 [=====] - 0s 4ms/step - loss: 0.6576 - accuracy: 0.6873
Epoch 62/100
39/39 [=====] - 0s 3ms/step - loss: 0.6489 - accuracy: 0.6824
Epoch 63/100
39/39 [=====] - 0s 3ms/step - loss: 0.6421 - accuracy: 0.6906
Epoch 64/100
39/39 [=====] - 0s 2ms/step - loss: 0.6448 - accuracy: 0.7068
Epoch 65/100
39/39 [=====] - 0s 3ms/step - loss: 0.6442 - accuracy: 0.7020
Epoch 66/100

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39/39 [=====] - 0s 4ms/step - loss: 0.6297 - accuracy: 0.7036
Epoch 67/100
39/39 [=====] - 0s 3ms/step - loss: 0.6409 - accuracy: 0.6906
Epoch 68/100
39/39 [=====] - 0s 3ms/step - loss: 0.6297 - accuracy: 0.7036
Epoch 69/100
39/39 [=====] - 0s 3ms/step - loss: 0.6438 - accuracy: 0.6840
Epoch 70/100
39/39 [=====] - 0s 2ms/step - loss: 0.6462 - accuracy: 0.7036
Epoch 71/100
39/39 [=====] - 0s 3ms/step - loss: 0.6379 - accuracy: 0.6987
Epoch 72/100
39/39 [=====] - 0s 2ms/step - loss: 0.6404 - accuracy: 0.6954
Epoch 73/100
39/39 [=====] - 0s 2ms/step - loss: 0.6360 - accuracy: 0.6873
Epoch 74/100
39/39 [=====] - 0s 2ms/step - loss: 0.6366 - accuracy: 0.7068
Epoch 75/100
39/39 [=====] - 0s 3ms/step - loss: 0.6338 - accuracy: 0.6971
Epoch 76/100
39/39 [=====] - 0s 2ms/step - loss: 0.6327 - accuracy: 0.6906
Epoch 77/100
39/39 [=====] - 0s 3ms/step - loss: 0.6363 - accuracy: 0.6938
Epoch 78/100
39/39 [=====] - 0s 3ms/step - loss: 0.6360 - accuracy: 0.6954
Epoch 79/100
39/39 [=====] - 0s 3ms/step - loss: 0.6275 - accuracy: 0.7052
Epoch 80/100
39/39 [=====] - 0s 3ms/step - loss: 0.6280 - accuracy: 0.6873
Epoch 81/100
39/39 [=====] - 0s 3ms/step - loss: 0.6240 - accuracy: 0.7052
Epoch 82/100
39/39 [=====] - 0s 2ms/step - loss: 0.6286 - accuracy: 0.6971
Epoch 83/100
39/39 [=====] - 0s 2ms/step - loss: 0.6306 - accuracy: 0.6938
Epoch 84/100
39/39 [=====] - 0s 3ms/step - loss: 0.6456 - accuracy: 0.7052
Epoch 85/100
39/39 [=====] - 0s 2ms/step - loss: 0.6392 - accuracy: 0.6873
Epoch 86/100
39/39 [=====] - 0s 4ms/step - loss: 0.6264 - accuracy: 0.6954
Epoch 87/100
39/39 [=====] - 0s 3ms/step - loss: 0.6308 - accuracy: 0.6906
Epoch 88/100
39/39 [=====] - 0s 3ms/step - loss: 0.6308 - accuracy: 0.6906
Epoch 89/100
39/39 [=====] - 0s 3ms/step - loss: 0.6245 - accuracy: 0.6906
Epoch 90/100
39/39 [=====] - 0s 2ms/step - loss: 0.6155 - accuracy: 0.7068
Epoch 91/100
39/39 [=====] - 0s 2ms/step - loss: 0.6201 - accuracy: 0.7150
Epoch 92/100
39/39 [=====] - 0s 2ms/step - loss: 0.6289 - accuracy: 0.6906
Epoch 93/100
39/39 [=====] - 0s 5ms/step - loss: 0.6223 - accuracy: 0.6922
Epoch 94/100
39/39 [=====] - 0s 6ms/step - loss: 0.6185 - accuracy: 0.6987
Epoch 95/100
39/39 [=====] - 0s 4ms/step - loss: 0.6256 - accuracy: 0.6873
Epoch 96/100
39/39 [=====] - 0s 4ms/step - loss: 0.6222 - accuracy: 0.6938
Epoch 97/100
39/39 [=====] - 0s 4ms/step - loss: 0.6242 - accuracy: 0.6922
Epoch 98/100
39/39 [=====] - 0s 4ms/step - loss: 0.6363 - accuracy: 0.6889
Epoch 99/100
39/39 [=====] - 0s 3ms/step - loss: 0.6131 - accuracy: 0.6938
Epoch 100/100
39/39 [=====] - 0s 4ms/step - loss: 0.6143 - accuracy: 0.6971
10/10 [=====] - 0s 1ms/step - loss: 0.7131 - accuracy: 0.6234
Epoch 1/100
39/39 [=====] - 1s 1ms/step - loss: 2.8578 - accuracy: 0.6319
Epoch 2/100
39/39 [=====] - 0s 1ms/step - loss: 0.8456 - accuracy: 0.6515
Epoch 3/100
39/39 [=====] - 0s 2ms/step - loss: 0.8292 - accuracy: 0.6531
Epoch 4/100
39/39 [=====] - 0s 3ms/step - loss: 0.8188 - accuracy: 0.6547
Epoch 5/100
39/39 [=====] - 0s 3ms/step - loss: 0.8111 - accuracy: 0.6547
Epoch 6/100
39/39 [=====] - 1s 17ms/step - loss: 0.8046 - accuracy: 0.6547
```

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Epoch 7/100
39/39 [=====] - 0s 11ms/step - loss: 0.7988 - accuracy: 0.6547
Epoch 8/100
39/39 [=====] - 1s 16ms/step - loss: 0.7939 - accuracy: 0.6547
Epoch 9/100
39/39 [=====] - 1s 21ms/step - loss: 0.7897 - accuracy: 0.6547
Epoch 10/100
39/39 [=====] - 1s 21ms/step - loss: 0.7854 - accuracy: 0.6547
Epoch 11/100
39/39 [=====] - 1s 18ms/step - loss: 0.7817 - accuracy: 0.6547
Epoch 12/100
39/39 [=====] - 0s 2ms/step - loss: 0.7784 - accuracy: 0.6564
Epoch 13/100
39/39 [=====] - 0s 3ms/step - loss: 0.7754 - accuracy: 0.6564
Epoch 14/100
39/39 [=====] - 0s 5ms/step - loss: 0.7727 - accuracy: 0.6564
Epoch 15/100
39/39 [=====] - 0s 4ms/step - loss: 0.7697 - accuracy: 0.6564
Epoch 16/100
39/39 [=====] - 0s 6ms/step - loss: 0.7675 - accuracy: 0.6564
Epoch 17/100
39/39 [=====] - 0s 4ms/step - loss: 0.7651 - accuracy: 0.6564
Epoch 18/100
39/39 [=====] - 0s 2ms/step - loss: 0.7629 - accuracy: 0.6564
Epoch 19/100
39/39 [=====] - 0s 4ms/step - loss: 0.7607 - accuracy: 0.6564
Epoch 20/100
39/39 [=====] - 0s 3ms/step - loss: 0.7587 - accuracy: 0.6564
Epoch 21/100
39/39 [=====] - 0s 4ms/step - loss: 0.7563 - accuracy: 0.6580
Epoch 22/100
39/39 [=====] - 0s 2ms/step - loss: 0.7543 - accuracy: 0.6580
Epoch 23/100
39/39 [=====] - 0s 3ms/step - loss: 0.7529 - accuracy: 0.6580
Epoch 24/100
39/39 [=====] - 0s 4ms/step - loss: 0.7507 - accuracy: 0.6580
Epoch 25/100
39/39 [=====] - 0s 4ms/step - loss: 0.7490 - accuracy: 0.6580
Epoch 26/100
39/39 [=====] - 0s 4ms/step - loss: 0.7473 - accuracy: 0.6580
Epoch 27/100
39/39 [=====] - 0s 4ms/step - loss: 0.7456 - accuracy: 0.6580
Epoch 28/100
39/39 [=====] - 0s 3ms/step - loss: 0.7441 - accuracy: 0.6580
Epoch 29/100
39/39 [=====] - 0s 3ms/step - loss: 0.7425 - accuracy: 0.6580
Epoch 30/100
39/39 [=====] - 0s 3ms/step - loss: 0.7409 - accuracy: 0.6580
Epoch 31/100
39/39 [=====] - 0s 4ms/step - loss: 0.7393 - accuracy: 0.6580
Epoch 32/100
39/39 [=====] - 0s 3ms/step - loss: 0.7378 - accuracy: 0.6580
Epoch 33/100
39/39 [=====] - 0s 6ms/step - loss: 0.7363 - accuracy: 0.6580
Epoch 34/100
39/39 [=====] - 0s 3ms/step - loss: 0.7349 - accuracy: 0.6580
Epoch 35/100
39/39 [=====] - 0s 4ms/step - loss: 0.7334 - accuracy: 0.6580
Epoch 36/100
39/39 [=====] - 0s 3ms/step - loss: 0.7319 - accuracy: 0.6580
Epoch 37/100
39/39 [=====] - 0s 2ms/step - loss: 0.7305 - accuracy: 0.6580
Epoch 38/100
39/39 [=====] - 0s 3ms/step - loss: 0.7293 - accuracy: 0.6580
Epoch 39/100
39/39 [=====] - 0s 4ms/step - loss: 0.7281 - accuracy: 0.6580
Epoch 40/100
39/39 [=====] - 0s 4ms/step - loss: 0.7267 - accuracy: 0.6580
Epoch 41/100
39/39 [=====] - 0s 4ms/step - loss: 0.7253 - accuracy: 0.6580
Epoch 42/100
39/39 [=====] - 0s 5ms/step - loss: 0.7241 - accuracy: 0.6580
Epoch 43/100
39/39 [=====] - 0s 2ms/step - loss: 0.7228 - accuracy: 0.6580
Epoch 44/100
39/39 [=====] - 0s 4ms/step - loss: 0.7216 - accuracy: 0.6580
Epoch 45/100
39/39 [=====] - 0s 3ms/step - loss: 0.7204 - accuracy: 0.6580
Epoch 46/100
39/39 [=====] - 0s 4ms/step - loss: 0.7192 - accuracy: 0.6580
Epoch 47/100
39/39 [=====] - 0s 3ms/step - loss: 0.7180 - accuracy: 0.6580
```

Epoch 48/100
39/39 [=====] - 0s 4ms/step - loss: 0.7169 - accuracy: 0.6580
Epoch 49/100
39/39 [=====] - 0s 2ms/step - loss: 0.7157 - accuracy: 0.6580
Epoch 50/100
39/39 [=====] - 0s 3ms/step - loss: 0.7146 - accuracy: 0.6580
Epoch 51/100
39/39 [=====] - 0s 4ms/step - loss: 0.7135 - accuracy: 0.6580
Epoch 52/100
39/39 [=====] - 0s 4ms/step - loss: 0.7124 - accuracy: 0.6580
Epoch 53/100
39/39 [=====] - 0s 3ms/step - loss: 0.7113 - accuracy: 0.6580
Epoch 54/100
39/39 [=====] - 0s 3ms/step - loss: 0.7103 - accuracy: 0.6580
Epoch 55/100
39/39 [=====] - 0s 3ms/step - loss: 0.7092 - accuracy: 0.6580
Epoch 56/100
39/39 [=====] - 0s 3ms/step - loss: 0.7082 - accuracy: 0.6580
Epoch 57/100
39/39 [=====] - 0s 3ms/step - loss: 0.7072 - accuracy: 0.6580
Epoch 58/100
39/39 [=====] - 0s 3ms/step - loss: 0.7063 - accuracy: 0.6580
Epoch 59/100
39/39 [=====] - 0s 3ms/step - loss: 0.7053 - accuracy: 0.6580
Epoch 60/100
39/39 [=====] - 0s 2ms/step - loss: 0.7043 - accuracy: 0.6580
Epoch 61/100
39/39 [=====] - 0s 3ms/step - loss: 0.7034 - accuracy: 0.6580
Epoch 62/100
39/39 [=====] - 0s 3ms/step - loss: 0.7024 - accuracy: 0.6580
Epoch 63/100
39/39 [=====] - 0s 2ms/step - loss: 0.7015 - accuracy: 0.6580
Epoch 64/100
39/39 [=====] - 0s 3ms/step - loss: 0.7006 - accuracy: 0.6580
Epoch 65/100
39/39 [=====] - 0s 4ms/step - loss: 0.6997 - accuracy: 0.6580
Epoch 66/100
39/39 [=====] - 0s 4ms/step - loss: 0.6989 - accuracy: 0.6580
Epoch 67/100
39/39 [=====] - 0s 3ms/step - loss: 0.6980 - accuracy: 0.6580
Epoch 68/100
39/39 [=====] - 0s 4ms/step - loss: 0.6972 - accuracy: 0.6580
Epoch 69/100
39/39 [=====] - 0s 2ms/step - loss: 0.6963 - accuracy: 0.6580
Epoch 70/100
39/39 [=====] - 0s 4ms/step - loss: 0.6955 - accuracy: 0.6580
Epoch 71/100
39/39 [=====] - 0s 2ms/step - loss: 0.6947 - accuracy: 0.6580
Epoch 72/100
39/39 [=====] - 0s 3ms/step - loss: 0.6939 - accuracy: 0.6580
Epoch 73/100
39/39 [=====] - 0s 3ms/step - loss: 0.6931 - accuracy: 0.6580
Epoch 74/100
39/39 [=====] - 0s 3ms/step - loss: 0.6924 - accuracy: 0.6580
Epoch 75/100
39/39 [=====] - 0s 3ms/step - loss: 0.6916 - accuracy: 0.6580
Epoch 76/100
39/39 [=====] - 0s 3ms/step - loss: 0.6908 - accuracy: 0.6580
Epoch 77/100
39/39 [=====] - 0s 4ms/step - loss: 0.6901 - accuracy: 0.6564
Epoch 78/100
39/39 [=====] - 0s 4ms/step - loss: 0.6894 - accuracy: 0.6580
Epoch 79/100
39/39 [=====] - 0s 3ms/step - loss: 0.6887 - accuracy: 0.6564
Epoch 80/100
39/39 [=====] - 0s 2ms/step - loss: 0.6880 - accuracy: 0.6564
Epoch 81/100
39/39 [=====] - 0s 3ms/step - loss: 0.6873 - accuracy: 0.6564
Epoch 82/100
39/39 [=====] - 0s 3ms/step - loss: 0.6866 - accuracy: 0.6564
Epoch 83/100
39/39 [=====] - 0s 3ms/step - loss: 0.6860 - accuracy: 0.6564
Epoch 84/100
39/39 [=====] - 0s 3ms/step - loss: 0.6853 - accuracy: 0.6564
Epoch 85/100
39/39 [=====] - 0s 3ms/step - loss: 0.6846 - accuracy: 0.6564
Epoch 86/100
39/39 [=====] - 0s 4ms/step - loss: 0.6840 - accuracy: 0.6564
Epoch 87/100
39/39 [=====] - 0s 3ms/step - loss: 0.6834 - accuracy: 0.6564
Epoch 88/100
39/39 [=====] - 0s 3ms/step - loss: 0.6828 - accuracy: 0.6564

Epoch 89/100
39/39 [=====] - 0s 5ms/step - loss: 0.6822 - accuracy: 0.6564
Epoch 90/100
39/39 [=====] - 0s 3ms/step - loss: 0.6816 - accuracy: 0.6564
Epoch 91/100
39/39 [=====] - 0s 3ms/step - loss: 0.6810 - accuracy: 0.6564
Epoch 92/100
39/39 [=====] - 0s 4ms/step - loss: 0.6804 - accuracy: 0.6564
Epoch 93/100
39/39 [=====] - 0s 2ms/step - loss: 0.6798 - accuracy: 0.6564
Epoch 94/100
39/39 [=====] - 0s 3ms/step - loss: 0.6793 - accuracy: 0.6564
Epoch 95/100
39/39 [=====] - 0s 2ms/step - loss: 0.6787 - accuracy: 0.6564
Epoch 96/100
39/39 [=====] - 0s 3ms/step - loss: 0.6782 - accuracy: 0.6564
Epoch 97/100
39/39 [=====] - 0s 3ms/step - loss: 0.6777 - accuracy: 0.6564
Epoch 98/100
39/39 [=====] - 0s 3ms/step - loss: 0.6771 - accuracy: 0.6564
Epoch 99/100
39/39 [=====] - 0s 2ms/step - loss: 0.6766 - accuracy: 0.6564
Epoch 100/100
39/39 [=====] - 0s 3ms/step - loss: 0.6761 - accuracy: 0.6564
10/10 [=====] - 0s 1ms/step - loss: 0.6963 - accuracy: 0.6234
Epoch 1/100
39/39 [=====] - 1s 2ms/step - loss: 1.2610 - accuracy: 0.5821
Epoch 2/100
39/39 [=====] - 0s 3ms/step - loss: 0.8445 - accuracy: 0.6293
Epoch 3/100
39/39 [=====] - 0s 3ms/step - loss: 0.8280 - accuracy: 0.6325
Epoch 4/100
39/39 [=====] - 0s 2ms/step - loss: 0.8177 - accuracy: 0.6293
Epoch 5/100
39/39 [=====] - 0s 3ms/step - loss: 0.8162 - accuracy: 0.6309
Epoch 6/100
39/39 [=====] - 0s 2ms/step - loss: 0.8111 - accuracy: 0.6309
Epoch 7/100
39/39 [=====] - 0s 3ms/step - loss: 0.8045 - accuracy: 0.6276
Epoch 8/100
39/39 [=====] - 0s 3ms/step - loss: 0.8028 - accuracy: 0.6309
Epoch 9/100
39/39 [=====] - 0s 4ms/step - loss: 0.7994 - accuracy: 0.6276
Epoch 10/100
39/39 [=====] - 0s 4ms/step - loss: 0.7967 - accuracy: 0.6276
Epoch 11/100
39/39 [=====] - 0s 3ms/step - loss: 0.7929 - accuracy: 0.6293
Epoch 12/100
39/39 [=====] - 0s 3ms/step - loss: 0.7921 - accuracy: 0.6276
Epoch 13/100
39/39 [=====] - 0s 4ms/step - loss: 0.7880 - accuracy: 0.6276
Epoch 14/100
39/39 [=====] - 0s 3ms/step - loss: 0.7853 - accuracy: 0.6276
Epoch 15/100
39/39 [=====] - 0s 2ms/step - loss: 0.7807 - accuracy: 0.6276
Epoch 16/100
39/39 [=====] - 0s 3ms/step - loss: 0.7787 - accuracy: 0.6276
Epoch 17/100
39/39 [=====] - 0s 3ms/step - loss: 0.7789 - accuracy: 0.6276
Epoch 18/100
39/39 [=====] - 0s 4ms/step - loss: 0.7765 - accuracy: 0.6276
Epoch 19/100
39/39 [=====] - 0s 3ms/step - loss: 0.7744 - accuracy: 0.6276
Epoch 20/100
39/39 [=====] - 0s 3ms/step - loss: 0.7727 - accuracy: 0.6276
Epoch 21/100
39/39 [=====] - 0s 4ms/step - loss: 0.7707 - accuracy: 0.6276
Epoch 22/100
39/39 [=====] - 0s 3ms/step - loss: 0.7666 - accuracy: 0.6276
Epoch 23/100
39/39 [=====] - 0s 3ms/step - loss: 0.7663 - accuracy: 0.6276
Epoch 24/100
39/39 [=====] - 0s 2ms/step - loss: 0.7649 - accuracy: 0.6276
Epoch 25/100
39/39 [=====] - 0s 4ms/step - loss: 0.7624 - accuracy: 0.6276
Epoch 26/100
39/39 [=====] - 0s 4ms/step - loss: 0.7592 - accuracy: 0.6276
Epoch 27/100
39/39 [=====] - 0s 3ms/step - loss: 0.7590 - accuracy: 0.6276
Epoch 28/100
39/39 [=====] - 0s 4ms/step - loss: 0.7559 - accuracy: 0.6276
Epoch 29/100

39/39 [=====] - 0s 3ms/step - loss: 0.7549 - accuracy: 0.6276
Epoch 30/100
39/39 [=====] - 0s 2ms/step - loss: 0.7531 - accuracy: 0.6276
Epoch 31/100
39/39 [=====] - 0s 3ms/step - loss: 0.7499 - accuracy: 0.6276
Epoch 32/100
39/39 [=====] - 0s 3ms/step - loss: 0.7506 - accuracy: 0.6276
Epoch 33/100
39/39 [=====] - 0s 3ms/step - loss: 0.7469 - accuracy: 0.6276
Epoch 34/100
39/39 [=====] - 0s 3ms/step - loss: 0.7435 - accuracy: 0.6276
Epoch 35/100
39/39 [=====] - 0s 3ms/step - loss: 0.7449 - accuracy: 0.6276
Epoch 36/100
39/39 [=====] - 0s 3ms/step - loss: 0.7431 - accuracy: 0.6276
Epoch 37/100
39/39 [=====] - 0s 5ms/step - loss: 0.7374 - accuracy: 0.6276
Epoch 38/100
39/39 [=====] - 0s 3ms/step - loss: 0.7396 - accuracy: 0.6276
Epoch 39/100
39/39 [=====] - 0s 3ms/step - loss: 0.7356 - accuracy: 0.6276
Epoch 40/100
39/39 [=====] - 0s 2ms/step - loss: 0.7350 - accuracy: 0.6276
Epoch 41/100
39/39 [=====] - 0s 4ms/step - loss: 0.7352 - accuracy: 0.6276
Epoch 42/100
39/39 [=====] - 0s 2ms/step - loss: 0.7318 - accuracy: 0.6276
Epoch 43/100
39/39 [=====] - 0s 4ms/step - loss: 0.7284 - accuracy: 0.6276
Epoch 44/100
39/39 [=====] - 0s 3ms/step - loss: 0.7270 - accuracy: 0.6276
Epoch 45/100
39/39 [=====] - 0s 3ms/step - loss: 0.7262 - accuracy: 0.6276
Epoch 46/100
39/39 [=====] - 0s 3ms/step - loss: 0.7197 - accuracy: 0.6276
Epoch 47/100
39/39 [=====] - 0s 3ms/step - loss: 0.7164 - accuracy: 0.6276
Epoch 48/100
39/39 [=====] - 0s 3ms/step - loss: 0.7153 - accuracy: 0.6276
Epoch 49/100
39/39 [=====] - 0s 4ms/step - loss: 0.7156 - accuracy: 0.6276
Epoch 50/100
39/39 [=====] - 0s 4ms/step - loss: 0.7110 - accuracy: 0.6276
Epoch 51/100
39/39 [=====] - 0s 3ms/step - loss: 0.7107 - accuracy: 0.6276
Epoch 52/100
39/39 [=====] - 0s 3ms/step - loss: 0.7119 - accuracy: 0.6276
Epoch 53/100
39/39 [=====] - 0s 3ms/step - loss: 0.7064 - accuracy: 0.6276
Epoch 54/100
39/39 [=====] - 0s 4ms/step - loss: 0.7056 - accuracy: 0.6276
Epoch 55/100
39/39 [=====] - 0s 3ms/step - loss: 0.7054 - accuracy: 0.6276
Epoch 56/100
39/39 [=====] - 0s 3ms/step - loss: 0.7048 - accuracy: 0.6276
Epoch 57/100
39/39 [=====] - 0s 3ms/step - loss: 0.7046 - accuracy: 0.6276
Epoch 58/100
39/39 [=====] - 0s 3ms/step - loss: 0.7015 - accuracy: 0.6276
Epoch 59/100
39/39 [=====] - 0s 3ms/step - loss: 0.6982 - accuracy: 0.6276
Epoch 60/100
39/39 [=====] - 0s 4ms/step - loss: 0.7006 - accuracy: 0.6276
Epoch 61/100
39/39 [=====] - 0s 4ms/step - loss: 0.7025 - accuracy: 0.6276
Epoch 62/100
39/39 [=====] - 0s 3ms/step - loss: 0.6973 - accuracy: 0.6276
Epoch 63/100
39/39 [=====] - 0s 4ms/step - loss: 0.6956 - accuracy: 0.6276
Epoch 64/100
39/39 [=====] - 0s 3ms/step - loss: 0.6947 - accuracy: 0.6276
Epoch 65/100
39/39 [=====] - 0s 3ms/step - loss: 0.6927 - accuracy: 0.6276
Epoch 66/100
39/39 [=====] - 0s 3ms/step - loss: 0.6944 - accuracy: 0.6276
Epoch 67/100
39/39 [=====] - 0s 3ms/step - loss: 0.6892 - accuracy: 0.6276
Epoch 68/100
39/39 [=====] - 0s 3ms/step - loss: 0.6879 - accuracy: 0.6276
Epoch 69/100
39/39 [=====] - 0s 3ms/step - loss: 0.6861 - accuracy: 0.6276
Epoch 70/100

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39/39 [=====] - 0s 3ms/step - loss: 0.6845 - accuracy: 0.6276
Epoch 71/100
39/39 [=====] - 0s 3ms/step - loss: 0.6864 - accuracy: 0.6276
Epoch 72/100
39/39 [=====] - 0s 3ms/step - loss: 0.6828 - accuracy: 0.6293
Epoch 73/100
39/39 [=====] - 0s 4ms/step - loss: 0.6794 - accuracy: 0.6276
Epoch 74/100
39/39 [=====] - 0s 4ms/step - loss: 0.6809 - accuracy: 0.6276
Epoch 75/100
39/39 [=====] - 0s 3ms/step - loss: 0.6846 - accuracy: 0.6276
Epoch 76/100
39/39 [=====] - 0s 3ms/step - loss: 0.6833 - accuracy: 0.6293
Epoch 77/100
39/39 [=====] - 0s 3ms/step - loss: 0.6769 - accuracy: 0.6276
Epoch 78/100
39/39 [=====] - 0s 3ms/step - loss: 0.6783 - accuracy: 0.6276
Epoch 79/100
39/39 [=====] - 0s 2ms/step - loss: 0.6745 - accuracy: 0.6276
Epoch 80/100
39/39 [=====] - 0s 3ms/step - loss: 0.6771 - accuracy: 0.6276
Epoch 81/100
39/39 [=====] - 0s 3ms/step - loss: 0.6824 - accuracy: 0.6276
Epoch 82/100
39/39 [=====] - 0s 3ms/step - loss: 0.6773 - accuracy: 0.6276
Epoch 83/100
39/39 [=====] - 0s 3ms/step - loss: 0.6755 - accuracy: 0.6276
Epoch 84/100
39/39 [=====] - 0s 4ms/step - loss: 0.6728 - accuracy: 0.6276
Epoch 85/100
39/39 [=====] - 0s 3ms/step - loss: 0.6780 - accuracy: 0.6276
Epoch 86/100
39/39 [=====] - 0s 3ms/step - loss: 0.6715 - accuracy: 0.6276
Epoch 87/100
39/39 [=====] - 0s 3ms/step - loss: 0.6714 - accuracy: 0.6276
Epoch 88/100
39/39 [=====] - 0s 2ms/step - loss: 0.6663 - accuracy: 0.6276
Epoch 89/100
39/39 [=====] - 0s 4ms/step - loss: 0.6814 - accuracy: 0.6276
Epoch 90/100
39/39 [=====] - 0s 2ms/step - loss: 0.6684 - accuracy: 0.6276
Epoch 91/100
39/39 [=====] - 0s 3ms/step - loss: 0.6804 - accuracy: 0.6276
Epoch 92/100
39/39 [=====] - 0s 4ms/step - loss: 0.6708 - accuracy: 0.6276
Epoch 93/100
39/39 [=====] - 0s 4ms/step - loss: 0.6692 - accuracy: 0.6276
Epoch 94/100
39/39 [=====] - 0s 3ms/step - loss: 0.6663 - accuracy: 0.6276
Epoch 95/100
39/39 [=====] - 0s 4ms/step - loss: 0.6660 - accuracy: 0.6276
Epoch 96/100
39/39 [=====] - 0s 2ms/step - loss: 0.6741 - accuracy: 0.6260
Epoch 97/100
39/39 [=====] - 0s 5ms/step - loss: 0.6655 - accuracy: 0.6276
Epoch 98/100
39/39 [=====] - 0s 3ms/step - loss: 0.6661 - accuracy: 0.6276
Epoch 99/100
39/39 [=====] - 0s 2ms/step - loss: 0.6679 - accuracy: 0.6276
Epoch 100/100
39/39 [=====] - 0s 4ms/step - loss: 0.6633 - accuracy: 0.6276
10/10 [=====] - 0s 2ms/step - loss: 0.6153 - accuracy: 0.7451
Epoch 1/100
39/39 [=====] - 0s 2ms/step - loss: 1.1062 - accuracy: 0.6179
Epoch 2/100
39/39 [=====] - 0s 4ms/step - loss: 0.8346 - accuracy: 0.6504
Epoch 3/100
39/39 [=====] - 0s 3ms/step - loss: 0.8208 - accuracy: 0.6520
Epoch 4/100
39/39 [=====] - 0s 2ms/step - loss: 0.8105 - accuracy: 0.6520
Epoch 5/100
39/39 [=====] - 0s 4ms/step - loss: 0.8047 - accuracy: 0.6520
Epoch 6/100
39/39 [=====] - 0s 4ms/step - loss: 0.7959 - accuracy: 0.6618
Epoch 7/100
39/39 [=====] - 0s 5ms/step - loss: 0.7904 - accuracy: 0.6650
Epoch 8/100
39/39 [=====] - 0s 3ms/step - loss: 0.7849 - accuracy: 0.6618
Epoch 9/100
39/39 [=====] - 0s 2ms/step - loss: 0.7807 - accuracy: 0.6585
Epoch 10/100
39/39 [=====] - 0s 4ms/step - loss: 0.7739 - accuracy: 0.6667
```

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Epoch 11/100
39/39 [=====] - 0s 3ms/step - loss: 0.7652 - accuracy: 0.6715
Epoch 12/100
39/39 [=====] - 0s 4ms/step - loss: 0.7596 - accuracy: 0.6732
Epoch 13/100
39/39 [=====] - 0s 2ms/step - loss: 0.7547 - accuracy: 0.6813
Epoch 14/100
39/39 [=====] - 0s 3ms/step - loss: 0.7535 - accuracy: 0.6829
Epoch 15/100
39/39 [=====] - 0s 2ms/step - loss: 0.7486 - accuracy: 0.6797
Epoch 16/100
39/39 [=====] - 0s 2ms/step - loss: 0.7460 - accuracy: 0.6797
Epoch 17/100
39/39 [=====] - 0s 4ms/step - loss: 0.7412 - accuracy: 0.6797
Epoch 18/100
39/39 [=====] - 0s 2ms/step - loss: 0.7409 - accuracy: 0.6780
Epoch 19/100
39/39 [=====] - 0s 6ms/step - loss: 0.7342 - accuracy: 0.6862
Epoch 20/100
39/39 [=====] - 0s 3ms/step - loss: 0.7316 - accuracy: 0.6862
Epoch 21/100
39/39 [=====] - 0s 3ms/step - loss: 0.7292 - accuracy: 0.6894
Epoch 22/100
39/39 [=====] - 0s 3ms/step - loss: 0.7310 - accuracy: 0.6748
Epoch 23/100
39/39 [=====] - 0s 4ms/step - loss: 0.7263 - accuracy: 0.6829
Epoch 24/100
39/39 [=====] - 0s 2ms/step - loss: 0.7254 - accuracy: 0.6846
Epoch 25/100
39/39 [=====] - 0s 2ms/step - loss: 0.7193 - accuracy: 0.6878
Epoch 26/100
39/39 [=====] - 0s 2ms/step - loss: 0.7201 - accuracy: 0.6846
Epoch 27/100
39/39 [=====] - 0s 2ms/step - loss: 0.7169 - accuracy: 0.6911
Epoch 28/100
39/39 [=====] - 0s 3ms/step - loss: 0.7150 - accuracy: 0.6878
Epoch 29/100
39/39 [=====] - 0s 3ms/step - loss: 0.7124 - accuracy: 0.6911
Epoch 30/100
39/39 [=====] - 0s 2ms/step - loss: 0.7121 - accuracy: 0.6894
Epoch 31/100
39/39 [=====] - 0s 6ms/step - loss: 0.7084 - accuracy: 0.6878
Epoch 32/100
39/39 [=====] - 0s 5ms/step - loss: 0.7065 - accuracy: 0.6797
Epoch 33/100
39/39 [=====] - 0s 4ms/step - loss: 0.7076 - accuracy: 0.6894
Epoch 34/100
39/39 [=====] - 0s 4ms/step - loss: 0.7050 - accuracy: 0.6894
Epoch 35/100
39/39 [=====] - 0s 3ms/step - loss: 0.7032 - accuracy: 0.6878
Epoch 36/100
39/39 [=====] - 0s 3ms/step - loss: 0.6994 - accuracy: 0.6878
Epoch 37/100
39/39 [=====] - 0s 3ms/step - loss: 0.7047 - accuracy: 0.6829
Epoch 38/100
39/39 [=====] - 0s 2ms/step - loss: 0.6949 - accuracy: 0.6797
Epoch 39/100
39/39 [=====] - 0s 4ms/step - loss: 0.7007 - accuracy: 0.6862
Epoch 40/100
39/39 [=====] - 0s 3ms/step - loss: 0.6957 - accuracy: 0.6878
Epoch 41/100
39/39 [=====] - 0s 2ms/step - loss: 0.6900 - accuracy: 0.6943
Epoch 42/100
39/39 [=====] - 0s 4ms/step - loss: 0.6896 - accuracy: 0.6911
Epoch 43/100
39/39 [=====] - 0s 5ms/step - loss: 0.6907 - accuracy: 0.6862
Epoch 44/100
39/39 [=====] - 0s 3ms/step - loss: 0.6888 - accuracy: 0.6846
Epoch 45/100
39/39 [=====] - 0s 2ms/step - loss: 0.6867 - accuracy: 0.6878
Epoch 46/100
39/39 [=====] - 0s 2ms/step - loss: 0.6850 - accuracy: 0.6959
Epoch 47/100
39/39 [=====] - 0s 2ms/step - loss: 0.6857 - accuracy: 0.6862
Epoch 48/100
39/39 [=====] - 0s 2ms/step - loss: 0.6846 - accuracy: 0.6927
Epoch 49/100
39/39 [=====] - 0s 2ms/step - loss: 0.6837 - accuracy: 0.6911
Epoch 50/100
39/39 [=====] - 0s 2ms/step - loss: 0.7018 - accuracy: 0.6780
Epoch 51/100
39/39 [=====] - 0s 2ms/step - loss: 0.6842 - accuracy: 0.6878
```



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Epoch 52/100
39/39 [=====] - 0s 2ms/step - loss: 0.6788 - accuracy: 0.6813
Epoch 53/100
39/39 [=====] - 0s 2ms/step - loss: 0.6803 - accuracy: 0.6959
Epoch 54/100
39/39 [=====] - 0s 2ms/step - loss: 0.6774 - accuracy: 0.6894
Epoch 55/100
39/39 [=====] - 0s 2ms/step - loss: 0.6758 - accuracy: 0.6976
Epoch 56/100
39/39 [=====] - 0s 2ms/step - loss: 0.6743 - accuracy: 0.6911
Epoch 57/100
39/39 [=====] - 0s 2ms/step - loss: 0.6770 - accuracy: 0.6846
Epoch 58/100
39/39 [=====] - 0s 2ms/step - loss: 0.6751 - accuracy: 0.6862
Epoch 59/100
39/39 [=====] - 0s 2ms/step - loss: 0.6725 - accuracy: 0.6813
Epoch 60/100
39/39 [=====] - 0s 2ms/step - loss: 0.6709 - accuracy: 0.6813
Epoch 61/100
39/39 [=====] - 0s 2ms/step - loss: 0.6735 - accuracy: 0.6846
Epoch 62/100
39/39 [=====] - 0s 2ms/step - loss: 0.6725 - accuracy: 0.6780
Epoch 63/100
39/39 [=====] - 0s 3ms/step - loss: 0.6711 - accuracy: 0.6943
Epoch 64/100
39/39 [=====] - 0s 2ms/step - loss: 0.6667 - accuracy: 0.6959
Epoch 65/100
39/39 [=====] - 0s 2ms/step - loss: 0.6727 - accuracy: 0.6862
Epoch 66/100
39/39 [=====] - 0s 2ms/step - loss: 0.6594 - accuracy: 0.6959
Epoch 67/100
39/39 [=====] - 0s 2ms/step - loss: 0.6636 - accuracy: 0.6829
Epoch 68/100
39/39 [=====] - 0s 2ms/step - loss: 0.6529 - accuracy: 0.6797
Epoch 69/100
39/39 [=====] - 0s 3ms/step - loss: 0.6557 - accuracy: 0.6894
Epoch 70/100
39/39 [=====] - 0s 2ms/step - loss: 0.6569 - accuracy: 0.6878
Epoch 71/100
39/39 [=====] - 0s 2ms/step - loss: 0.6574 - accuracy: 0.6878
Epoch 72/100
39/39 [=====] - 0s 2ms/step - loss: 0.6546 - accuracy: 0.6862
Epoch 73/100
39/39 [=====] - 0s 2ms/step - loss: 0.6452 - accuracy: 0.6943
Epoch 74/100
39/39 [=====] - 0s 2ms/step - loss: 0.6468 - accuracy: 0.6959
Epoch 75/100
39/39 [=====] - 0s 2ms/step - loss: 0.6528 - accuracy: 0.6797
Epoch 76/100
39/39 [=====] - 0s 2ms/step - loss: 0.6496 - accuracy: 0.6911
Epoch 77/100
39/39 [=====] - 0s 2ms/step - loss: 0.6443 - accuracy: 0.6927
Epoch 78/100
39/39 [=====] - 0s 2ms/step - loss: 0.6498 - accuracy: 0.6862
Epoch 79/100
39/39 [=====] - 0s 2ms/step - loss: 0.6479 - accuracy: 0.6911
Epoch 80/100
39/39 [=====] - 0s 2ms/step - loss: 0.6383 - accuracy: 0.6927
Epoch 81/100
39/39 [=====] - 0s 2ms/step - loss: 0.6390 - accuracy: 0.6959
Epoch 82/100
39/39 [=====] - 0s 3ms/step - loss: 0.6408 - accuracy: 0.6894
Epoch 83/100
39/39 [=====] - 0s 2ms/step - loss: 0.6383 - accuracy: 0.6927
Epoch 84/100
39/39 [=====] - 0s 2ms/step - loss: 0.6380 - accuracy: 0.6959
Epoch 85/100
39/39 [=====] - 0s 2ms/step - loss: 0.6404 - accuracy: 0.6894
Epoch 86/100
39/39 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6846
Epoch 87/100
39/39 [=====] - 0s 2ms/step - loss: 0.6315 - accuracy: 0.6894
Epoch 88/100
39/39 [=====] - 0s 2ms/step - loss: 0.6435 - accuracy: 0.6894
Epoch 89/100
39/39 [=====] - 0s 2ms/step - loss: 0.6421 - accuracy: 0.6878
Epoch 90/100
39/39 [=====] - 0s 2ms/step - loss: 0.6317 - accuracy: 0.6829
Epoch 91/100
39/39 [=====] - 0s 2ms/step - loss: 0.6347 - accuracy: 0.6959
Epoch 92/100
39/39 [=====] - 0s 2ms/step - loss: 0.6375 - accuracy: 0.6943
```

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Epoch 93/100
39/39 [=====] - 0s 2ms/step - loss: 0.6480 - accuracy: 0.6943
Epoch 94/100
39/39 [=====] - 0s 2ms/step - loss: 0.6272 - accuracy: 0.6943
Epoch 95/100
39/39 [=====] - 0s 2ms/step - loss: 0.6287 - accuracy: 0.6976
Epoch 96/100
39/39 [=====] - 0s 2ms/step - loss: 0.6296 - accuracy: 0.6959
Epoch 97/100
39/39 [=====] - 0s 2ms/step - loss: 0.6487 - accuracy: 0.6715
Epoch 98/100
39/39 [=====] - 0s 2ms/step - loss: 0.6283 - accuracy: 0.6862
Epoch 99/100
39/39 [=====] - 0s 2ms/step - loss: 0.6276 - accuracy: 0.6992
Epoch 100/100
39/39 [=====] - 0s 2ms/step - loss: 0.6268 - accuracy: 0.6846
10/10 [=====] - 0s 1ms/step - loss: 0.6771 - accuracy: 0.6667
Epoch 1/100
39/39 [=====] - 0s 2ms/step - loss: 4.2733 - accuracy: 0.5863
Epoch 2/100
39/39 [=====] - 0s 2ms/step - loss: 1.9339 - accuracy: 0.6384
Epoch 3/100
39/39 [=====] - 0s 2ms/step - loss: 1.7475 - accuracy: 0.6515
Epoch 4/100
39/39 [=====] - 0s 2ms/step - loss: 1.5856 - accuracy: 0.6515
Epoch 5/100
39/39 [=====] - 0s 2ms/step - loss: 1.4539 - accuracy: 0.6515
Epoch 6/100
39/39 [=====] - 0s 2ms/step - loss: 1.3364 - accuracy: 0.6515
Epoch 7/100
39/39 [=====] - 0s 2ms/step - loss: 1.2374 - accuracy: 0.6515
Epoch 8/100
39/39 [=====] - 0s 2ms/step - loss: 1.1516 - accuracy: 0.6515
Epoch 9/100
39/39 [=====] - 0s 4ms/step - loss: 1.0778 - accuracy: 0.6515
Epoch 10/100
39/39 [=====] - 0s 3ms/step - loss: 1.0137 - accuracy: 0.6515
Epoch 11/100
39/39 [=====] - 0s 2ms/step - loss: 0.9617 - accuracy: 0.6515
Epoch 12/100
39/39 [=====] - 0s 2ms/step - loss: 0.9157 - accuracy: 0.6515
Epoch 13/100
39/39 [=====] - 0s 3ms/step - loss: 0.8773 - accuracy: 0.6515
Epoch 14/100
39/39 [=====] - 0s 3ms/step - loss: 0.8436 - accuracy: 0.6515
Epoch 15/100
39/39 [=====] - 0s 2ms/step - loss: 0.8156 - accuracy: 0.6515
Epoch 16/100
39/39 [=====] - 0s 2ms/step - loss: 0.7903 - accuracy: 0.6515
Epoch 17/100
39/39 [=====] - 0s 2ms/step - loss: 0.7700 - accuracy: 0.6515
Epoch 18/100
39/39 [=====] - 0s 2ms/step - loss: 0.7519 - accuracy: 0.6515
Epoch 19/100
39/39 [=====] - 0s 2ms/step - loss: 0.7363 - accuracy: 0.6515
Epoch 20/100
39/39 [=====] - 0s 2ms/step - loss: 0.7222 - accuracy: 0.6515
Epoch 21/100
39/39 [=====] - 0s 2ms/step - loss: 0.7094 - accuracy: 0.6515
Epoch 22/100
39/39 [=====] - 0s 2ms/step - loss: 0.7010 - accuracy: 0.6515
Epoch 23/100
39/39 [=====] - 0s 4ms/step - loss: 0.6931 - accuracy: 0.6515
Epoch 24/100
39/39 [=====] - 0s 2ms/step - loss: 0.6844 - accuracy: 0.6515
Epoch 25/100
39/39 [=====] - 0s 1ms/step - loss: 0.6804 - accuracy: 0.6515
Epoch 26/100
39/39 [=====] - 0s 2ms/step - loss: 0.6752 - accuracy: 0.6515
Epoch 27/100
39/39 [=====] - 0s 2ms/step - loss: 0.6681 - accuracy: 0.6515
Epoch 28/100
39/39 [=====] - 0s 4ms/step - loss: 0.6654 - accuracy: 0.6515
Epoch 29/100
39/39 [=====] - 0s 3ms/step - loss: 0.6619 - accuracy: 0.6515
Epoch 30/100
39/39 [=====] - 0s 4ms/step - loss: 0.6578 - accuracy: 0.6515
Epoch 31/100
39/39 [=====] - 0s 3ms/step - loss: 0.6559 - accuracy: 0.6515
Epoch 32/100
39/39 [=====] - 0s 2ms/step - loss: 0.6518 - accuracy: 0.6515
Epoch 33/100
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39/39 [=====] - 0s 2ms/step - loss: 0.6504 - accuracy: 0.6515
Epoch 34/100
39/39 [=====] - 0s 2ms/step - loss: 0.6506 - accuracy: 0.6515
Epoch 35/100
39/39 [=====] - 0s 2ms/step - loss: 0.6493 - accuracy: 0.6515
Epoch 36/100
39/39 [=====] - 0s 3ms/step - loss: 0.6475 - accuracy: 0.6515
Epoch 37/100
39/39 [=====] - 0s 3ms/step - loss: 0.6429 - accuracy: 0.6515
Epoch 38/100
39/39 [=====] - 0s 3ms/step - loss: 0.6463 - accuracy: 0.6515
Epoch 39/100
39/39 [=====] - 0s 2ms/step - loss: 0.6440 - accuracy: 0.6515
Epoch 40/100
39/39 [=====] - 0s 2ms/step - loss: 0.6413 - accuracy: 0.6515
Epoch 41/100
39/39 [=====] - 0s 2ms/step - loss: 0.6420 - accuracy: 0.6515
Epoch 42/100
39/39 [=====] - 0s 2ms/step - loss: 0.6400 - accuracy: 0.6515
Epoch 43/100
39/39 [=====] - 0s 2ms/step - loss: 0.6432 - accuracy: 0.6515
Epoch 44/100
39/39 [=====] - 0s 2ms/step - loss: 0.6412 - accuracy: 0.6515
Epoch 45/100
39/39 [=====] - 0s 3ms/step - loss: 0.6422 - accuracy: 0.6515
Epoch 46/100
39/39 [=====] - 0s 2ms/step - loss: 0.6443 - accuracy: 0.6515
Epoch 47/100
39/39 [=====] - 0s 3ms/step - loss: 0.6402 - accuracy: 0.6515
Epoch 48/100
39/39 [=====] - 0s 2ms/step - loss: 0.6380 - accuracy: 0.6515
Epoch 49/100
39/39 [=====] - 0s 2ms/step - loss: 0.6366 - accuracy: 0.6498
Epoch 50/100
39/39 [=====] - 0s 2ms/step - loss: 0.6393 - accuracy: 0.6710
Epoch 51/100
39/39 [=====] - 0s 2ms/step - loss: 0.6309 - accuracy: 0.6840
Epoch 52/100
39/39 [=====] - 0s 2ms/step - loss: 0.6335 - accuracy: 0.6808
Epoch 53/100
39/39 [=====] - 0s 2ms/step - loss: 0.6241 - accuracy: 0.6743
Epoch 54/100
39/39 [=====] - 0s 2ms/step - loss: 0.6391 - accuracy: 0.6710
Epoch 55/100
39/39 [=====] - 0s 2ms/step - loss: 0.6352 - accuracy: 0.6612
Epoch 56/100
39/39 [=====] - 0s 2ms/step - loss: 0.6229 - accuracy: 0.6824
Epoch 57/100
39/39 [=====] - 0s 2ms/step - loss: 0.6251 - accuracy: 0.6775
Epoch 58/100
39/39 [=====] - 0s 2ms/step - loss: 0.6256 - accuracy: 0.6775
Epoch 59/100
39/39 [=====] - 0s 1ms/step - loss: 0.6335 - accuracy: 0.6857
Epoch 60/100
39/39 [=====] - 0s 2ms/step - loss: 0.6323 - accuracy: 0.6726
Epoch 61/100
39/39 [=====] - 0s 3ms/step - loss: 0.6211 - accuracy: 0.6759
Epoch 62/100
39/39 [=====] - 0s 2ms/step - loss: 0.6279 - accuracy: 0.6775
Epoch 63/100
39/39 [=====] - 0s 2ms/step - loss: 0.6180 - accuracy: 0.6906
Epoch 64/100
39/39 [=====] - 0s 2ms/step - loss: 0.6245 - accuracy: 0.6759
Epoch 65/100
39/39 [=====] - 0s 2ms/step - loss: 0.6291 - accuracy: 0.6824
Epoch 66/100
39/39 [=====] - 0s 2ms/step - loss: 0.6200 - accuracy: 0.6906
Epoch 67/100
39/39 [=====] - 0s 1ms/step - loss: 0.6259 - accuracy: 0.6678
Epoch 68/100
39/39 [=====] - 0s 2ms/step - loss: 0.6253 - accuracy: 0.6840
Epoch 69/100
39/39 [=====] - 0s 2ms/step - loss: 0.6224 - accuracy: 0.6743
Epoch 70/100
39/39 [=====] - 0s 1ms/step - loss: 0.6195 - accuracy: 0.6873
Epoch 71/100
39/39 [=====] - 0s 1ms/step - loss: 0.6211 - accuracy: 0.6971
Epoch 72/100
39/39 [=====] - 0s 2ms/step - loss: 0.6269 - accuracy: 0.6759
Epoch 73/100
39/39 [=====] - 0s 2ms/step - loss: 0.6350 - accuracy: 0.6515
Epoch 74/100

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39/39 [=====] - 0s 1ms/step - loss: 0.6173 - accuracy: 0.6922
Epoch 75/100
39/39 [=====] - 0s 2ms/step - loss: 0.6259 - accuracy: 0.6873
Epoch 76/100
39/39 [=====] - 0s 2ms/step - loss: 0.6255 - accuracy: 0.6954
Epoch 77/100
39/39 [=====] - 0s 2ms/step - loss: 0.6214 - accuracy: 0.6922
Epoch 78/100
39/39 [=====] - 0s 2ms/step - loss: 0.6193 - accuracy: 0.6857
Epoch 79/100
39/39 [=====] - 0s 2ms/step - loss: 0.6213 - accuracy: 0.6808
Epoch 80/100
39/39 [=====] - 0s 2ms/step - loss: 0.6204 - accuracy: 0.6857
Epoch 81/100
39/39 [=====] - 0s 2ms/step - loss: 0.6189 - accuracy: 0.6954
Epoch 82/100
39/39 [=====] - 0s 1ms/step - loss: 0.6096 - accuracy: 0.6906
Epoch 83/100
39/39 [=====] - 0s 1ms/step - loss: 0.6130 - accuracy: 0.6889
Epoch 84/100
39/39 [=====] - 0s 1ms/step - loss: 0.6093 - accuracy: 0.6792
Epoch 85/100
39/39 [=====] - 0s 1ms/step - loss: 0.6141 - accuracy: 0.6971
Epoch 86/100
39/39 [=====] - 0s 1ms/step - loss: 0.6193 - accuracy: 0.6612
Epoch 87/100
39/39 [=====] - 0s 2ms/step - loss: 0.6095 - accuracy: 0.6987
Epoch 88/100
39/39 [=====] - 0s 2ms/step - loss: 0.6265 - accuracy: 0.6873
Epoch 89/100
39/39 [=====] - 0s 2ms/step - loss: 0.6170 - accuracy: 0.6889
Epoch 90/100
39/39 [=====] - 0s 2ms/step - loss: 0.6065 - accuracy: 0.7068
Epoch 91/100
39/39 [=====] - 0s 2ms/step - loss: 0.6162 - accuracy: 0.6857
Epoch 92/100
39/39 [=====] - 0s 1ms/step - loss: 0.6073 - accuracy: 0.6987
Epoch 93/100
39/39 [=====] - 0s 2ms/step - loss: 0.6129 - accuracy: 0.6922
Epoch 94/100
39/39 [=====] - 0s 2ms/step - loss: 0.6110 - accuracy: 0.7003
Epoch 95/100
39/39 [=====] - 0s 2ms/step - loss: 0.6155 - accuracy: 0.6792
Epoch 96/100
39/39 [=====] - 0s 2ms/step - loss: 0.6110 - accuracy: 0.6906
Epoch 97/100
39/39 [=====] - 0s 2ms/step - loss: 0.6144 - accuracy: 0.6857
Epoch 98/100
39/39 [=====] - 0s 2ms/step - loss: 0.6161 - accuracy: 0.6840
Epoch 99/100
39/39 [=====] - 0s 2ms/step - loss: 0.6050 - accuracy: 0.6938
Epoch 100/100
39/39 [=====] - 0s 2ms/step - loss: 0.6031 - accuracy: 0.6987
10/10 [=====] - 0s 1ms/step - loss: 0.6208 - accuracy: 0.6429
Epoch 1/100
39/39 [=====] - 0s 2ms/step - loss: 4.5752 - accuracy: 0.6140
Epoch 2/100
39/39 [=====] - 0s 2ms/step - loss: 2.0611 - accuracy: 0.6303
Epoch 3/100
39/39 [=====] - 0s 2ms/step - loss: 1.8266 - accuracy: 0.6808
Epoch 4/100
39/39 [=====] - 0s 2ms/step - loss: 1.6447 - accuracy: 0.6759
Epoch 5/100
39/39 [=====] - 0s 3ms/step - loss: 1.4899 - accuracy: 0.6840
Epoch 6/100
39/39 [=====] - 0s 3ms/step - loss: 1.3607 - accuracy: 0.6971
Epoch 7/100
39/39 [=====] - 0s 2ms/step - loss: 1.2479 - accuracy: 0.6889
Epoch 8/100
39/39 [=====] - 0s 2ms/step - loss: 1.1563 - accuracy: 0.6922
Epoch 9/100
39/39 [=====] - 0s 2ms/step - loss: 1.0743 - accuracy: 0.6857
Epoch 10/100
39/39 [=====] - 0s 4ms/step - loss: 1.0058 - accuracy: 0.6971
Epoch 11/100
39/39 [=====] - 0s 4ms/step - loss: 0.9503 - accuracy: 0.6971
Epoch 12/100
39/39 [=====] - 0s 4ms/step - loss: 0.9015 - accuracy: 0.6824
Epoch 13/100
39/39 [=====] - 0s 4ms/step - loss: 0.8562 - accuracy: 0.6954
Epoch 14/100
39/39 [=====] - 0s 3ms/step - loss: 0.8185 - accuracy: 0.7036
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Epoch 15/100
39/39 [=====] - 0s 3ms/step - loss: 0.7869 - accuracy: 0.7068
Epoch 16/100
39/39 [=====] - 0s 4ms/step - loss: 0.7631 - accuracy: 0.6938
Epoch 17/100
39/39 [=====] - 0s 4ms/step - loss: 0.7382 - accuracy: 0.6938
Epoch 18/100
39/39 [=====] - 0s 3ms/step - loss: 0.7175 - accuracy: 0.7003
Epoch 19/100
39/39 [=====] - 0s 3ms/step - loss: 0.6984 - accuracy: 0.7068
Epoch 20/100
39/39 [=====] - 0s 2ms/step - loss: 0.6850 - accuracy: 0.7068
Epoch 21/100
39/39 [=====] - 0s 3ms/step - loss: 0.6706 - accuracy: 0.6971
Epoch 22/100
39/39 [=====] - 0s 2ms/step - loss: 0.6545 - accuracy: 0.7182
Epoch 23/100
39/39 [=====] - 0s 2ms/step - loss: 0.6661 - accuracy: 0.6954
Epoch 24/100
39/39 [=====] - 0s 2ms/step - loss: 0.6463 - accuracy: 0.6938
Epoch 25/100
39/39 [=====] - 0s 2ms/step - loss: 0.6287 - accuracy: 0.7052
Epoch 26/100
39/39 [=====] - 0s 2ms/step - loss: 0.6351 - accuracy: 0.7068
Epoch 27/100
39/39 [=====] - 0s 3ms/step - loss: 0.6233 - accuracy: 0.7117
Epoch 28/100
39/39 [=====] - 0s 2ms/step - loss: 0.6227 - accuracy: 0.6987
Epoch 29/100
39/39 [=====] - 0s 3ms/step - loss: 0.6165 - accuracy: 0.7036
Epoch 30/100
39/39 [=====] - 0s 3ms/step - loss: 0.6204 - accuracy: 0.6906
Epoch 31/100
39/39 [=====] - 0s 3ms/step - loss: 0.6100 - accuracy: 0.7052
Epoch 32/100
39/39 [=====] - 0s 2ms/step - loss: 0.6082 - accuracy: 0.7068
Epoch 33/100
39/39 [=====] - 0s 2ms/step - loss: 0.6095 - accuracy: 0.6971
Epoch 34/100
39/39 [=====] - 0s 3ms/step - loss: 0.5987 - accuracy: 0.7085
Epoch 35/100
39/39 [=====] - 0s 2ms/step - loss: 0.6035 - accuracy: 0.7068
Epoch 36/100
39/39 [=====] - 0s 3ms/step - loss: 0.6067 - accuracy: 0.7036
Epoch 37/100
39/39 [=====] - 0s 2ms/step - loss: 0.5935 - accuracy: 0.7199
Epoch 38/100
39/39 [=====] - 0s 3ms/step - loss: 0.6033 - accuracy: 0.7134
Epoch 39/100
39/39 [=====] - 0s 2ms/step - loss: 0.6010 - accuracy: 0.7003
Epoch 40/100
39/39 [=====] - 0s 3ms/step - loss: 0.6002 - accuracy: 0.6873
Epoch 41/100
39/39 [=====] - 0s 2ms/step - loss: 0.5952 - accuracy: 0.6987
Epoch 42/100
39/39 [=====] - 0s 3ms/step - loss: 0.6003 - accuracy: 0.6857
Epoch 43/100
39/39 [=====] - 0s 4ms/step - loss: 0.5890 - accuracy: 0.7052
Epoch 44/100
39/39 [=====] - 0s 4ms/step - loss: 0.6018 - accuracy: 0.6954
Epoch 45/100
39/39 [=====] - 0s 3ms/step - loss: 0.5926 - accuracy: 0.6938
Epoch 46/100
39/39 [=====] - 0s 3ms/step - loss: 0.5939 - accuracy: 0.6938
Epoch 47/100
39/39 [=====] - 0s 3ms/step - loss: 0.5927 - accuracy: 0.6873
Epoch 48/100
39/39 [=====] - 0s 2ms/step - loss: 0.5960 - accuracy: 0.6824
Epoch 49/100
39/39 [=====] - 0s 2ms/step - loss: 0.6009 - accuracy: 0.6954
Epoch 50/100
39/39 [=====] - 0s 2ms/step - loss: 0.5943 - accuracy: 0.6971
Epoch 51/100
39/39 [=====] - 0s 2ms/step - loss: 0.5926 - accuracy: 0.7036
Epoch 52/100
39/39 [=====] - 0s 2ms/step - loss: 0.5927 - accuracy: 0.6906
Epoch 53/100
39/39 [=====] - 0s 2ms/step - loss: 0.5858 - accuracy: 0.6938
Epoch 54/100
39/39 [=====] - 0s 3ms/step - loss: 0.5821 - accuracy: 0.7003
Epoch 55/100
39/39 [=====] - 0s 2ms/step - loss: 0.5967 - accuracy: 0.6889
```

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Epoch 56/100
39/39 [=====] - 0s 3ms/step - loss: 0.5841 - accuracy: 0.7150
Epoch 57/100
39/39 [=====] - 0s 2ms/step - loss: 0.5898 - accuracy: 0.7036
Epoch 58/100
39/39 [=====] - 0s 3ms/step - loss: 0.5809 - accuracy: 0.7085
Epoch 59/100
39/39 [=====] - 0s 2ms/step - loss: 0.5906 - accuracy: 0.6971
Epoch 60/100
39/39 [=====] - 0s 3ms/step - loss: 0.5896 - accuracy: 0.7036
Epoch 61/100
39/39 [=====] - 0s 2ms/step - loss: 0.5912 - accuracy: 0.7068
Epoch 62/100
39/39 [=====] - 0s 2ms/step - loss: 0.5767 - accuracy: 0.7264
Epoch 63/100
39/39 [=====] - 0s 3ms/step - loss: 0.5853 - accuracy: 0.7248
Epoch 64/100
39/39 [=====] - 0s 2ms/step - loss: 0.5894 - accuracy: 0.6938
Epoch 65/100
39/39 [=====] - 0s 3ms/step - loss: 0.5996 - accuracy: 0.7085
Epoch 66/100
39/39 [=====] - 0s 2ms/step - loss: 0.5965 - accuracy: 0.7020
Epoch 67/100
39/39 [=====] - 0s 2ms/step - loss: 0.6005 - accuracy: 0.6922
Epoch 68/100
39/39 [=====] - 0s 2ms/step - loss: 0.5862 - accuracy: 0.7052
Epoch 69/100
39/39 [=====] - 0s 2ms/step - loss: 0.6000 - accuracy: 0.7052
Epoch 70/100
39/39 [=====] - 0s 2ms/step - loss: 0.5819 - accuracy: 0.7101
Epoch 71/100
39/39 [=====] - 0s 3ms/step - loss: 0.5876 - accuracy: 0.6954
Epoch 72/100
39/39 [=====] - 0s 3ms/step - loss: 0.5832 - accuracy: 0.7182
Epoch 73/100
39/39 [=====] - 0s 2ms/step - loss: 0.5891 - accuracy: 0.6889
Epoch 74/100
39/39 [=====] - 0s 2ms/step - loss: 0.5755 - accuracy: 0.7085
Epoch 75/100
39/39 [=====] - 0s 2ms/step - loss: 0.5913 - accuracy: 0.6857
Epoch 76/100
39/39 [=====] - 0s 3ms/step - loss: 0.5878 - accuracy: 0.7117
Epoch 77/100
39/39 [=====] - 0s 2ms/step - loss: 0.5909 - accuracy: 0.7231
Epoch 78/100
39/39 [=====] - 0s 2ms/step - loss: 0.5887 - accuracy: 0.6954
Epoch 79/100
39/39 [=====] - 0s 2ms/step - loss: 0.5941 - accuracy: 0.6954
Epoch 80/100
39/39 [=====] - 0s 2ms/step - loss: 0.5879 - accuracy: 0.7101
Epoch 81/100
39/39 [=====] - 0s 2ms/step - loss: 0.5880 - accuracy: 0.6971
Epoch 82/100
39/39 [=====] - 0s 2ms/step - loss: 0.5934 - accuracy: 0.7052
Epoch 83/100
39/39 [=====] - 0s 3ms/step - loss: 0.5800 - accuracy: 0.7085
Epoch 84/100
39/39 [=====] - 0s 2ms/step - loss: 0.5854 - accuracy: 0.7182
Epoch 85/100
39/39 [=====] - 0s 2ms/step - loss: 0.5853 - accuracy: 0.7085
Epoch 86/100
39/39 [=====] - 0s 2ms/step - loss: 0.5891 - accuracy: 0.6971
Epoch 87/100
39/39 [=====] - 0s 2ms/step - loss: 0.5795 - accuracy: 0.7280
Epoch 88/100
39/39 [=====] - 0s 2ms/step - loss: 0.5841 - accuracy: 0.7020
Epoch 89/100
39/39 [=====] - 0s 2ms/step - loss: 0.5870 - accuracy: 0.7199
Epoch 90/100
39/39 [=====] - 0s 2ms/step - loss: 0.5536 - accuracy: 0.7476
Epoch 91/100
39/39 [=====] - 0s 2ms/step - loss: 0.5844 - accuracy: 0.7150
Epoch 92/100
39/39 [=====] - 0s 2ms/step - loss: 0.5769 - accuracy: 0.7085
Epoch 93/100
39/39 [=====] - 0s 2ms/step - loss: 0.5991 - accuracy: 0.6938
Epoch 94/100
39/39 [=====] - 0s 2ms/step - loss: 0.5779 - accuracy: 0.7085
Epoch 95/100
39/39 [=====] - 0s 1ms/step - loss: 0.5936 - accuracy: 0.7166
Epoch 96/100
39/39 [=====] - 0s 2ms/step - loss: 0.5684 - accuracy: 0.7280
```

Epoch 97/100
39/39 [=====] - 0s 3ms/step - loss: 0.5920 - accuracy: 0.6938
Epoch 98/100
39/39 [=====] - 0s 3ms/step - loss: 0.5786 - accuracy: 0.7150
Epoch 99/100
39/39 [=====] - 0s 3ms/step - loss: 0.5825 - accuracy: 0.7215
Epoch 100/100
39/39 [=====] - 0s 2ms/step - loss: 0.5719 - accuracy: 0.7117
10/10 [=====] - 0s 3ms/step - loss: 0.7604 - accuracy: 0.5649
Epoch 1/100
39/39 [=====] - 0s 2ms/step - loss: 3.1940 - accuracy: 0.6124
Epoch 2/100
39/39 [=====] - 0s 2ms/step - loss: 1.8678 - accuracy: 0.6645
Epoch 3/100
39/39 [=====] - 0s 2ms/step - loss: 1.6405 - accuracy: 0.6515
Epoch 4/100
39/39 [=====] - 0s 2ms/step - loss: 1.4764 - accuracy: 0.6433
Epoch 5/100
39/39 [=====] - 0s 2ms/step - loss: 1.3546 - accuracy: 0.6547
Epoch 6/100
39/39 [=====] - 0s 2ms/step - loss: 1.2534 - accuracy: 0.6564
Epoch 7/100
39/39 [=====] - 0s 2ms/step - loss: 1.1602 - accuracy: 0.6531
Epoch 8/100
39/39 [=====] - 0s 3ms/step - loss: 1.0808 - accuracy: 0.6515
Epoch 9/100
39/39 [=====] - 0s 2ms/step - loss: 1.0190 - accuracy: 0.6564
Epoch 10/100
39/39 [=====] - 0s 3ms/step - loss: 0.9592 - accuracy: 0.6580
Epoch 11/100
39/39 [=====] - 0s 3ms/step - loss: 0.9086 - accuracy: 0.6564
Epoch 12/100
39/39 [=====] - 0s 2ms/step - loss: 0.8750 - accuracy: 0.6531
Epoch 13/100
39/39 [=====] - 0s 3ms/step - loss: 0.8336 - accuracy: 0.6580
Epoch 14/100
39/39 [=====] - 0s 2ms/step - loss: 0.8094 - accuracy: 0.6612
Epoch 15/100
39/39 [=====] - 0s 3ms/step - loss: 0.7871 - accuracy: 0.6612
Epoch 16/100
39/39 [=====] - 0s 2ms/step - loss: 0.7628 - accuracy: 0.6564
Epoch 17/100
39/39 [=====] - 0s 3ms/step - loss: 0.7418 - accuracy: 0.6629
Epoch 18/100
39/39 [=====] - 0s 3ms/step - loss: 0.7258 - accuracy: 0.6661
Epoch 19/100
39/39 [=====] - 0s 3ms/step - loss: 0.7123 - accuracy: 0.6645
Epoch 20/100
39/39 [=====] - 0s 2ms/step - loss: 0.7065 - accuracy: 0.6580
Epoch 21/100
39/39 [=====] - 0s 3ms/step - loss: 0.6882 - accuracy: 0.6531
Epoch 22/100
39/39 [=====] - 0s 4ms/step - loss: 0.6829 - accuracy: 0.6645
Epoch 23/100
39/39 [=====] - 0s 3ms/step - loss: 0.6723 - accuracy: 0.6612
Epoch 24/100
39/39 [=====] - 0s 5ms/step - loss: 0.6658 - accuracy: 0.6710
Epoch 25/100
39/39 [=====] - 0s 3ms/step - loss: 0.6624 - accuracy: 0.6694
Epoch 26/100
39/39 [=====] - 0s 3ms/step - loss: 0.6620 - accuracy: 0.6645
Epoch 27/100
39/39 [=====] - 0s 3ms/step - loss: 0.6445 - accuracy: 0.6743
Epoch 28/100
39/39 [=====] - 0s 2ms/step - loss: 0.6516 - accuracy: 0.6710
Epoch 29/100
39/39 [=====] - 0s 2ms/step - loss: 0.6455 - accuracy: 0.6873
Epoch 30/100
39/39 [=====] - 0s 2ms/step - loss: 0.6438 - accuracy: 0.6661
Epoch 31/100
39/39 [=====] - 0s 4ms/step - loss: 0.6424 - accuracy: 0.6743
Epoch 32/100
39/39 [=====] - 0s 4ms/step - loss: 0.6382 - accuracy: 0.6889
Epoch 33/100
39/39 [=====] - 0s 4ms/step - loss: 0.6352 - accuracy: 0.6824
Epoch 34/100
39/39 [=====] - 0s 4ms/step - loss: 0.6301 - accuracy: 0.6808
Epoch 35/100
39/39 [=====] - 0s 4ms/step - loss: 0.6414 - accuracy: 0.6743
Epoch 36/100
39/39 [=====] - 0s 5ms/step - loss: 0.6322 - accuracy: 0.6678
Epoch 37/100

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39/39 [=====] - 0s 3ms/step - loss: 0.6221 - accuracy: 0.6873
Epoch 38/100
39/39 [=====] - 0s 3ms/step - loss: 0.6243 - accuracy: 0.6775
Epoch 39/100
39/39 [=====] - 0s 3ms/step - loss: 0.6212 - accuracy: 0.6971
Epoch 40/100
39/39 [=====] - 0s 2ms/step - loss: 0.6296 - accuracy: 0.6678
Epoch 41/100
39/39 [=====] - 0s 3ms/step - loss: 0.6212 - accuracy: 0.6775
Epoch 42/100
39/39 [=====] - 0s 4ms/step - loss: 0.6247 - accuracy: 0.6954
Epoch 43/100
39/39 [=====] - 0s 3ms/step - loss: 0.6181 - accuracy: 0.6971
Epoch 44/100
39/39 [=====] - 0s 2ms/step - loss: 0.6134 - accuracy: 0.6873
Epoch 45/100
39/39 [=====] - 0s 5ms/step - loss: 0.6145 - accuracy: 0.6971
Epoch 46/100
39/39 [=====] - 0s 2ms/step - loss: 0.6235 - accuracy: 0.6840
Epoch 47/100
39/39 [=====] - 0s 3ms/step - loss: 0.6165 - accuracy: 0.6987
Epoch 48/100
39/39 [=====] - 0s 3ms/step - loss: 0.6192 - accuracy: 0.6775
Epoch 49/100
39/39 [=====] - 0s 4ms/step - loss: 0.6188 - accuracy: 0.6759
Epoch 50/100
39/39 [=====] - 0s 3ms/step - loss: 0.6203 - accuracy: 0.6857
Epoch 51/100
39/39 [=====] - 0s 3ms/step - loss: 0.6184 - accuracy: 0.6824
Epoch 52/100
39/39 [=====] - 0s 3ms/step - loss: 0.6203 - accuracy: 0.6873
Epoch 53/100
39/39 [=====] - 0s 4ms/step - loss: 0.6177 - accuracy: 0.6906
Epoch 54/100
39/39 [=====] - 0s 3ms/step - loss: 0.6139 - accuracy: 0.6906
Epoch 55/100
39/39 [=====] - 0s 4ms/step - loss: 0.6176 - accuracy: 0.6938
Epoch 56/100
39/39 [=====] - 0s 3ms/step - loss: 0.6163 - accuracy: 0.6792
Epoch 57/100
39/39 [=====] - 0s 3ms/step - loss: 0.6154 - accuracy: 0.7020
Epoch 58/100
39/39 [=====] - 0s 3ms/step - loss: 0.6213 - accuracy: 0.6694
Epoch 59/100
39/39 [=====] - 0s 3ms/step - loss: 0.6244 - accuracy: 0.6629
Epoch 60/100
39/39 [=====] - 0s 3ms/step - loss: 0.6072 - accuracy: 0.6759
Epoch 61/100
39/39 [=====] - 0s 5ms/step - loss: 0.5985 - accuracy: 0.6889
Epoch 62/100
39/39 [=====] - 0s 3ms/step - loss: 0.6132 - accuracy: 0.6971
Epoch 63/100
39/39 [=====] - 0s 3ms/step - loss: 0.6099 - accuracy: 0.6987
Epoch 64/100
39/39 [=====] - 0s 2ms/step - loss: 0.6088 - accuracy: 0.7020
Epoch 65/100
39/39 [=====] - 0s 2ms/step - loss: 0.6130 - accuracy: 0.6873
Epoch 66/100
39/39 [=====] - 0s 4ms/step - loss: 0.5965 - accuracy: 0.7101
Epoch 67/100
39/39 [=====] - 0s 4ms/step - loss: 0.6195 - accuracy: 0.6645
Epoch 68/100
39/39 [=====] - 0s 3ms/step - loss: 0.6109 - accuracy: 0.6987
Epoch 69/100
39/39 [=====] - 0s 3ms/step - loss: 0.6116 - accuracy: 0.6873
Epoch 70/100
39/39 [=====] - 0s 3ms/step - loss: 0.6035 - accuracy: 0.7085
Epoch 71/100
39/39 [=====] - 0s 3ms/step - loss: 0.6082 - accuracy: 0.7020
Epoch 72/100
39/39 [=====] - 0s 3ms/step - loss: 0.6060 - accuracy: 0.6743
Epoch 73/100
39/39 [=====] - 0s 4ms/step - loss: 0.6121 - accuracy: 0.6824
Epoch 74/100
39/39 [=====] - 0s 4ms/step - loss: 0.6023 - accuracy: 0.6889
Epoch 75/100
39/39 [=====] - 0s 4ms/step - loss: 0.6028 - accuracy: 0.6906
Epoch 76/100
39/39 [=====] - 0s 3ms/step - loss: 0.6020 - accuracy: 0.7085
Epoch 77/100
39/39 [=====] - 0s 3ms/step - loss: 0.6159 - accuracy: 0.6775
Epoch 78/100
```



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39/39 [=====] - 0s 4ms/step - loss: 0.6066 - accuracy: 0.7150
Epoch 79/100
39/39 [=====] - 0s 3ms/step - loss: 0.6002 - accuracy: 0.7117
Epoch 80/100
39/39 [=====] - 0s 3ms/step - loss: 0.6062 - accuracy: 0.6938
Epoch 81/100
39/39 [=====] - 0s 2ms/step - loss: 0.6070 - accuracy: 0.6987
Epoch 82/100
39/39 [=====] - 0s 3ms/step - loss: 0.5991 - accuracy: 0.6938
Epoch 83/100
39/39 [=====] - 0s 3ms/step - loss: 0.6049 - accuracy: 0.6906
Epoch 84/100
39/39 [=====] - 0s 5ms/step - loss: 0.6000 - accuracy: 0.6954
Epoch 85/100
39/39 [=====] - 0s 3ms/step - loss: 0.6158 - accuracy: 0.6775
Epoch 86/100
39/39 [=====] - 0s 4ms/step - loss: 0.6004 - accuracy: 0.7085
Epoch 87/100
39/39 [=====] - 0s 3ms/step - loss: 0.5958 - accuracy: 0.7036
Epoch 88/100
39/39 [=====] - 0s 3ms/step - loss: 0.6060 - accuracy: 0.6873
Epoch 89/100
39/39 [=====] - 0s 2ms/step - loss: 0.6068 - accuracy: 0.7020
Epoch 90/100
39/39 [=====] - 0s 4ms/step - loss: 0.6025 - accuracy: 0.7020
Epoch 91/100
39/39 [=====] - 0s 3ms/step - loss: 0.6043 - accuracy: 0.6873
Epoch 92/100
39/39 [=====] - 0s 4ms/step - loss: 0.6085 - accuracy: 0.6938
Epoch 93/100
39/39 [=====] - 0s 3ms/step - loss: 0.6058 - accuracy: 0.6840
Epoch 94/100
39/39 [=====] - 0s 3ms/step - loss: 0.6096 - accuracy: 0.7020
Epoch 95/100
39/39 [=====] - 0s 3ms/step - loss: 0.6011 - accuracy: 0.6938
Epoch 96/100
39/39 [=====] - 0s 3ms/step - loss: 0.6023 - accuracy: 0.6824
Epoch 97/100
39/39 [=====] - 0s 2ms/step - loss: 0.5979 - accuracy: 0.7068
Epoch 98/100
39/39 [=====] - 0s 2ms/step - loss: 0.5999 - accuracy: 0.6840
Epoch 99/100
39/39 [=====] - 0s 2ms/step - loss: 0.5995 - accuracy: 0.6938
Epoch 100/100
39/39 [=====] - 0s 2ms/step - loss: 0.6020 - accuracy: 0.6906
10/10 [=====] - 0s 1ms/step - loss: 0.6094 - accuracy: 0.7338
Epoch 1/100
39/39 [=====] - 0s 2ms/step - loss: 3.7038 - accuracy: 0.5333
Epoch 2/100
39/39 [=====] - 0s 2ms/step - loss: 1.9816 - accuracy: 0.6081
Epoch 3/100
39/39 [=====] - 0s 2ms/step - loss: 1.7625 - accuracy: 0.6585
Epoch 4/100
39/39 [=====] - 0s 2ms/step - loss: 1.6078 - accuracy: 0.6618
Epoch 5/100
39/39 [=====] - 0s 3ms/step - loss: 1.4557 - accuracy: 0.6699
Epoch 6/100
39/39 [=====] - 0s 2ms/step - loss: 1.3421 - accuracy: 0.6585
Epoch 7/100
39/39 [=====] - 0s 2ms/step - loss: 1.2457 - accuracy: 0.6618
Epoch 8/100
39/39 [=====] - 0s 2ms/step - loss: 1.1517 - accuracy: 0.6829
Epoch 9/100
39/39 [=====] - 0s 3ms/step - loss: 1.0764 - accuracy: 0.6797
Epoch 10/100
39/39 [=====] - 0s 2ms/step - loss: 1.0136 - accuracy: 0.6829
Epoch 11/100
39/39 [=====] - 0s 3ms/step - loss: 0.9595 - accuracy: 0.6650
Epoch 12/100
39/39 [=====] - 0s 3ms/step - loss: 0.9084 - accuracy: 0.6650
Epoch 13/100
39/39 [=====] - 0s 5ms/step - loss: 0.8679 - accuracy: 0.6667
Epoch 14/100
39/39 [=====] - 0s 3ms/step - loss: 0.8347 - accuracy: 0.6764
Epoch 15/100
39/39 [=====] - 0s 3ms/step - loss: 0.7997 - accuracy: 0.6813
Epoch 16/100
39/39 [=====] - 0s 2ms/step - loss: 0.7770 - accuracy: 0.6797
Epoch 17/100
39/39 [=====] - 0s 3ms/step - loss: 0.7586 - accuracy: 0.6780
Epoch 18/100
39/39 [=====] - 0s 3ms/step - loss: 0.7372 - accuracy: 0.6732
```

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Epoch 19/100
39/39 [=====] - 0s 2ms/step - loss: 0.7237 - accuracy: 0.6715
Epoch 20/100
39/39 [=====] - 0s 2ms/step - loss: 0.7174 - accuracy: 0.6992
Epoch 21/100
39/39 [=====] - 0s 2ms/step - loss: 0.7026 - accuracy: 0.6683
Epoch 22/100
39/39 [=====] - 0s 3ms/step - loss: 0.7004 - accuracy: 0.6715
Epoch 23/100
39/39 [=====] - 0s 2ms/step - loss: 0.6824 - accuracy: 0.6927
Epoch 24/100
39/39 [=====] - 0s 2ms/step - loss: 0.6818 - accuracy: 0.6748
Epoch 25/100
39/39 [=====] - 0s 3ms/step - loss: 0.6766 - accuracy: 0.6813
Epoch 26/100
39/39 [=====] - 0s 2ms/step - loss: 0.6734 - accuracy: 0.6634
Epoch 27/100
39/39 [=====] - 0s 3ms/step - loss: 0.6672 - accuracy: 0.6813
Epoch 28/100
39/39 [=====] - 0s 2ms/step - loss: 0.6514 - accuracy: 0.6894
Epoch 29/100
39/39 [=====] - 0s 5ms/step - loss: 0.6660 - accuracy: 0.6813
Epoch 30/100
39/39 [=====] - 0s 2ms/step - loss: 0.6576 - accuracy: 0.6732
Epoch 31/100
39/39 [=====] - 0s 3ms/step - loss: 0.6432 - accuracy: 0.6829
Epoch 32/100
39/39 [=====] - 0s 2ms/step - loss: 0.6472 - accuracy: 0.6943
Epoch 33/100
39/39 [=====] - 0s 2ms/step - loss: 0.6483 - accuracy: 0.6732
Epoch 34/100
39/39 [=====] - 0s 3ms/step - loss: 0.6480 - accuracy: 0.6650
Epoch 35/100
39/39 [=====] - 0s 2ms/step - loss: 0.6507 - accuracy: 0.6667
Epoch 36/100
39/39 [=====] - 0s 2ms/step - loss: 0.6436 - accuracy: 0.6553
Epoch 37/100
39/39 [=====] - 0s 3ms/step - loss: 0.6382 - accuracy: 0.6569
Epoch 38/100
39/39 [=====] - 0s 2ms/step - loss: 0.6336 - accuracy: 0.6650
Epoch 39/100
39/39 [=====] - 0s 2ms/step - loss: 0.6336 - accuracy: 0.6813
Epoch 40/100
39/39 [=====] - 0s 3ms/step - loss: 0.6393 - accuracy: 0.6715
Epoch 41/100
39/39 [=====] - 0s 2ms/step - loss: 0.6283 - accuracy: 0.6715
Epoch 42/100
39/39 [=====] - 0s 3ms/step - loss: 0.6480 - accuracy: 0.6797
Epoch 43/100
39/39 [=====] - 0s 2ms/step - loss: 0.6362 - accuracy: 0.6797
Epoch 44/100
39/39 [=====] - 0s 2ms/step - loss: 0.6375 - accuracy: 0.6715
Epoch 45/100
39/39 [=====] - 0s 2ms/step - loss: 0.6319 - accuracy: 0.6780
Epoch 46/100
39/39 [=====] - 0s 3ms/step - loss: 0.6363 - accuracy: 0.6667
Epoch 47/100
39/39 [=====] - 0s 3ms/step - loss: 0.6285 - accuracy: 0.6553
Epoch 48/100
39/39 [=====] - 0s 3ms/step - loss: 0.6304 - accuracy: 0.6797
Epoch 49/100
39/39 [=====] - 0s 3ms/step - loss: 0.6262 - accuracy: 0.6748
Epoch 50/100
39/39 [=====] - 0s 3ms/step - loss: 0.6302 - accuracy: 0.6862
Epoch 51/100
39/39 [=====] - 0s 3ms/step - loss: 0.6334 - accuracy: 0.6764
Epoch 52/100
39/39 [=====] - 0s 2ms/step - loss: 0.6316 - accuracy: 0.6715
Epoch 53/100
39/39 [=====] - 0s 3ms/step - loss: 0.6344 - accuracy: 0.6878
Epoch 54/100
39/39 [=====] - 0s 2ms/step - loss: 0.6393 - accuracy: 0.6569
Epoch 55/100
39/39 [=====] - 0s 3ms/step - loss: 0.6293 - accuracy: 0.6878
Epoch 56/100
39/39 [=====] - 0s 2ms/step - loss: 0.6294 - accuracy: 0.6732
Epoch 57/100
39/39 [=====] - 0s 3ms/step - loss: 0.6286 - accuracy: 0.6699
Epoch 58/100
39/39 [=====] - 0s 2ms/step - loss: 0.6293 - accuracy: 0.6764
Epoch 59/100
39/39 [=====] - 0s 3ms/step - loss: 0.6266 - accuracy: 0.6667
```

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Epoch 60/100
39/39 [=====] - 0s 3ms/step - loss: 0.6302 - accuracy: 0.6699
Epoch 61/100
39/39 [=====] - 0s 2ms/step - loss: 0.6281 - accuracy: 0.6699
Epoch 62/100
39/39 [=====] - 0s 4ms/step - loss: 0.6209 - accuracy: 0.6683
Epoch 63/100
39/39 [=====] - 0s 2ms/step - loss: 0.6278 - accuracy: 0.6683
Epoch 64/100
39/39 [=====] - 0s 2ms/step - loss: 0.6277 - accuracy: 0.6797
Epoch 65/100
39/39 [=====] - 0s 3ms/step - loss: 0.6119 - accuracy: 0.6764
Epoch 66/100
39/39 [=====] - 0s 2ms/step - loss: 0.6303 - accuracy: 0.6683
Epoch 67/100
39/39 [=====] - 0s 3ms/step - loss: 0.6262 - accuracy: 0.6862
Epoch 68/100
39/39 [=====] - 0s 2ms/step - loss: 0.6274 - accuracy: 0.6715
Epoch 69/100
39/39 [=====] - 0s 3ms/step - loss: 0.6233 - accuracy: 0.6797
Epoch 70/100
39/39 [=====] - 0s 2ms/step - loss: 0.6210 - accuracy: 0.6846
Epoch 71/100
39/39 [=====] - 0s 4ms/step - loss: 0.6176 - accuracy: 0.6748
Epoch 72/100
39/39 [=====] - 0s 4ms/step - loss: 0.6219 - accuracy: 0.6683
Epoch 73/100
39/39 [=====] - 0s 2ms/step - loss: 0.6281 - accuracy: 0.6667
Epoch 74/100
39/39 [=====] - 0s 2ms/step - loss: 0.6220 - accuracy: 0.6829
Epoch 75/100
39/39 [=====] - 0s 3ms/step - loss: 0.6237 - accuracy: 0.6618
Epoch 76/100
39/39 [=====] - 0s 3ms/step - loss: 0.6165 - accuracy: 0.6927
Epoch 77/100
39/39 [=====] - 0s 3ms/step - loss: 0.6155 - accuracy: 0.6829
Epoch 78/100
39/39 [=====] - 0s 3ms/step - loss: 0.6188 - accuracy: 0.6764
Epoch 79/100
39/39 [=====] - 0s 3ms/step - loss: 0.6148 - accuracy: 0.6878
Epoch 80/100
39/39 [=====] - 0s 2ms/step - loss: 0.6105 - accuracy: 0.6813
Epoch 81/100
39/39 [=====] - 0s 2ms/step - loss: 0.6209 - accuracy: 0.6764
Epoch 82/100
39/39 [=====] - 0s 3ms/step - loss: 0.6135 - accuracy: 0.6748
Epoch 83/100
39/39 [=====] - 0s 2ms/step - loss: 0.6155 - accuracy: 0.6911
Epoch 84/100
39/39 [=====] - 0s 3ms/step - loss: 0.6137 - accuracy: 0.6829
Epoch 85/100
39/39 [=====] - 0s 2ms/step - loss: 0.6165 - accuracy: 0.6927
Epoch 86/100
39/39 [=====] - 0s 4ms/step - loss: 0.6204 - accuracy: 0.6797
Epoch 87/100
39/39 [=====] - 0s 3ms/step - loss: 0.6186 - accuracy: 0.7154
Epoch 88/100
39/39 [=====] - 0s 2ms/step - loss: 0.6162 - accuracy: 0.6715
Epoch 89/100
39/39 [=====] - 0s 3ms/step - loss: 0.6198 - accuracy: 0.6699
Epoch 90/100
39/39 [=====] - 0s 2ms/step - loss: 0.6134 - accuracy: 0.6813
Epoch 91/100
39/39 [=====] - 0s 3ms/step - loss: 0.6118 - accuracy: 0.6862
Epoch 92/100
39/39 [=====] - 0s 2ms/step - loss: 0.6157 - accuracy: 0.6846
Epoch 93/100
39/39 [=====] - 0s 3ms/step - loss: 0.6157 - accuracy: 0.6862
Epoch 94/100
39/39 [=====] - 0s 3ms/step - loss: 0.6133 - accuracy: 0.6715
Epoch 95/100
39/39 [=====] - 0s 4ms/step - loss: 0.6139 - accuracy: 0.6894
Epoch 96/100
39/39 [=====] - 0s 4ms/step - loss: 0.6123 - accuracy: 0.6927
Epoch 97/100
39/39 [=====] - 0s 6ms/step - loss: 0.6163 - accuracy: 0.6846
Epoch 98/100
39/39 [=====] - 0s 4ms/step - loss: 0.6163 - accuracy: 0.6894
Epoch 99/100
39/39 [=====] - 0s 4ms/step - loss: 0.6139 - accuracy: 0.6878
Epoch 100/100
39/39 [=====] - 0s 4ms/step - loss: 0.6134 - accuracy: 0.7057
```

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10/10 [=====] - 0s 1ms/step - loss: 0.5610 - accuracy: 0.7778
Epoch 1/100
39/39 [=====] - 0s 2ms/step - loss: 3.1704 - accuracy: 0.6260
Epoch 2/100
39/39 [=====] - 0s 3ms/step - loss: 2.2843 - accuracy: 0.6472
Epoch 3/100
39/39 [=====] - 0s 3ms/step - loss: 2.0428 - accuracy: 0.6472
Epoch 4/100
39/39 [=====] - 0s 2ms/step - loss: 1.8385 - accuracy: 0.6488
Epoch 5/100
39/39 [=====] - 0s 2ms/step - loss: 1.6645 - accuracy: 0.6504
Epoch 6/100
39/39 [=====] - 0s 3ms/step - loss: 1.5162 - accuracy: 0.6520
Epoch 7/100
39/39 [=====] - 0s 3ms/step - loss: 1.3894 - accuracy: 0.6520
Epoch 8/100
39/39 [=====] - 0s 3ms/step - loss: 1.2814 - accuracy: 0.6537
Epoch 9/100
39/39 [=====] - 0s 3ms/step - loss: 1.1891 - accuracy: 0.6537
Epoch 10/100
39/39 [=====] - 0s 3ms/step - loss: 1.1102 - accuracy: 0.6537
Epoch 11/100
39/39 [=====] - 0s 2ms/step - loss: 1.0429 - accuracy: 0.6537
Epoch 12/100
39/39 [=====] - 0s 2ms/step - loss: 0.9853 - accuracy: 0.6553
Epoch 13/100
39/39 [=====] - 0s 2ms/step - loss: 0.9362 - accuracy: 0.6537
Epoch 14/100
39/39 [=====] - 0s 2ms/step - loss: 0.8942 - accuracy: 0.6553
Epoch 15/100
39/39 [=====] - 0s 3ms/step - loss: 0.8583 - accuracy: 0.6553
Epoch 16/100
39/39 [=====] - 0s 2ms/step - loss: 0.8276 - accuracy: 0.6537
Epoch 17/100
39/39 [=====] - 0s 2ms/step - loss: 0.8014 - accuracy: 0.6553
Epoch 18/100
39/39 [=====] - 0s 2ms/step - loss: 0.7789 - accuracy: 0.6537
Epoch 19/100
39/39 [=====] - 0s 2ms/step - loss: 0.7598 - accuracy: 0.6537
Epoch 20/100
39/39 [=====] - 0s 3ms/step - loss: 0.7435 - accuracy: 0.6537
Epoch 21/100
39/39 [=====] - 0s 3ms/step - loss: 0.7294 - accuracy: 0.6537
Epoch 22/100
39/39 [=====] - 0s 2ms/step - loss: 0.7174 - accuracy: 0.6520
Epoch 23/100
39/39 [=====] - 0s 3ms/step - loss: 0.7072 - accuracy: 0.6537
Epoch 24/100
39/39 [=====] - 0s 2ms/step - loss: 0.6984 - accuracy: 0.6520
Epoch 25/100
39/39 [=====] - 0s 3ms/step - loss: 0.6909 - accuracy: 0.6520
Epoch 26/100
39/39 [=====] - 0s 2ms/step - loss: 0.6844 - accuracy: 0.6520
Epoch 27/100
39/39 [=====] - 0s 3ms/step - loss: 0.6789 - accuracy: 0.6520
Epoch 28/100
39/39 [=====] - 0s 2ms/step - loss: 0.6743 - accuracy: 0.6520
Epoch 29/100
39/39 [=====] - 0s 2ms/step - loss: 0.6702 - accuracy: 0.6520
Epoch 30/100
39/39 [=====] - 0s 2ms/step - loss: 0.6668 - accuracy: 0.6520
Epoch 31/100
39/39 [=====] - 0s 3ms/step - loss: 0.6638 - accuracy: 0.6520
Epoch 32/100
39/39 [=====] - 0s 3ms/step - loss: 0.6613 - accuracy: 0.6520
Epoch 33/100
39/39 [=====] - 0s 4ms/step - loss: 0.6591 - accuracy: 0.6520
Epoch 34/100
39/39 [=====] - 0s 3ms/step - loss: 0.6573 - accuracy: 0.6520
Epoch 35/100
39/39 [=====] - 0s 3ms/step - loss: 0.6557 - accuracy: 0.6520
Epoch 36/100
39/39 [=====] - 0s 2ms/step - loss: 0.6543 - accuracy: 0.6520
Epoch 37/100
39/39 [=====] - 0s 3ms/step - loss: 0.6532 - accuracy: 0.6520
Epoch 38/100
39/39 [=====] - 0s 2ms/step - loss: 0.6522 - accuracy: 0.6520
Epoch 39/100
39/39 [=====] - 0s 2ms/step - loss: 0.6514 - accuracy: 0.6520
Epoch 40/100
39/39 [=====] - 0s 2ms/step - loss: 0.6507 - accuracy: 0.6520
Epoch 41/100
```

39/39 [=====] - 0s 2ms/step - loss: 0.6500 - accuracy: 0.6520
Epoch 42/100
39/39 [=====] - 0s 4ms/step - loss: 0.6495 - accuracy: 0.6520
Epoch 43/100
39/39 [=====] - 0s 3ms/step - loss: 0.6490 - accuracy: 0.6520
Epoch 44/100
39/39 [=====] - 0s 2ms/step - loss: 0.6486 - accuracy: 0.6520
Epoch 45/100
39/39 [=====] - 0s 3ms/step - loss: 0.6482 - accuracy: 0.6520
Epoch 46/100
39/39 [=====] - 0s 3ms/step - loss: 0.6480 - accuracy: 0.6520
Epoch 47/100
39/39 [=====] - 0s 3ms/step - loss: 0.6477 - accuracy: 0.6520
Epoch 48/100
39/39 [=====] - 0s 3ms/step - loss: 0.6476 - accuracy: 0.6520
Epoch 49/100
39/39 [=====] - 0s 3ms/step - loss: 0.6474 - accuracy: 0.6520
Epoch 50/100
39/39 [=====] - 0s 3ms/step - loss: 0.6472 - accuracy: 0.6520
Epoch 51/100
39/39 [=====] - 0s 2ms/step - loss: 0.6471 - accuracy: 0.6520
Epoch 52/100
39/39 [=====] - 0s 2ms/step - loss: 0.6469 - accuracy: 0.6520
Epoch 53/100
39/39 [=====] - 0s 3ms/step - loss: 0.6467 - accuracy: 0.6520
Epoch 54/100
39/39 [=====] - 0s 3ms/step - loss: 0.6465 - accuracy: 0.6520
Epoch 55/100
39/39 [=====] - 0s 3ms/step - loss: 0.6464 - accuracy: 0.6520
Epoch 56/100
39/39 [=====] - 0s 3ms/step - loss: 0.6462 - accuracy: 0.6520
Epoch 57/100
39/39 [=====] - 0s 2ms/step - loss: 0.6458 - accuracy: 0.6520
Epoch 58/100
39/39 [=====] - 0s 4ms/step - loss: 0.6459 - accuracy: 0.6520
Epoch 59/100
39/39 [=====] - 0s 3ms/step - loss: 0.6454 - accuracy: 0.6520
Epoch 60/100
39/39 [=====] - 0s 3ms/step - loss: 0.6447 - accuracy: 0.6520
Epoch 61/100
39/39 [=====] - 0s 2ms/step - loss: 0.6428 - accuracy: 0.6520
Epoch 62/100
39/39 [=====] - 0s 3ms/step - loss: 0.6420 - accuracy: 0.6520
Epoch 63/100
39/39 [=====] - 0s 2ms/step - loss: 0.6425 - accuracy: 0.6520
Epoch 64/100
39/39 [=====] - 0s 3ms/step - loss: 0.6431 - accuracy: 0.6520
Epoch 65/100
39/39 [=====] - 0s 2ms/step - loss: 0.6432 - accuracy: 0.6520
Epoch 66/100
39/39 [=====] - 0s 3ms/step - loss: 0.6423 - accuracy: 0.6520
Epoch 67/100
39/39 [=====] - 0s 3ms/step - loss: 0.6436 - accuracy: 0.6520
Epoch 68/100
39/39 [=====] - 0s 3ms/step - loss: 0.6415 - accuracy: 0.6520
Epoch 69/100
39/39 [=====] - 0s 4ms/step - loss: 0.6393 - accuracy: 0.6520
Epoch 70/100
39/39 [=====] - 0s 3ms/step - loss: 0.6405 - accuracy: 0.6520
Epoch 71/100
39/39 [=====] - 0s 2ms/step - loss: 0.6388 - accuracy: 0.6520
Epoch 72/100
39/39 [=====] - 0s 3ms/step - loss: 0.6380 - accuracy: 0.6520
Epoch 73/100
39/39 [=====] - 0s 2ms/step - loss: 0.6412 - accuracy: 0.6520
Epoch 74/100
39/39 [=====] - 0s 2ms/step - loss: 0.6374 - accuracy: 0.6520
Epoch 75/100
39/39 [=====] - 0s 2ms/step - loss: 0.6413 - accuracy: 0.6520
Epoch 76/100
39/39 [=====] - 0s 2ms/step - loss: 0.6386 - accuracy: 0.6520
Epoch 77/100
39/39 [=====] - 0s 2ms/step - loss: 0.6437 - accuracy: 0.6520
Epoch 78/100
39/39 [=====] - 0s 2ms/step - loss: 0.6399 - accuracy: 0.6520
Epoch 79/100
39/39 [=====] - 0s 2ms/step - loss: 0.6336 - accuracy: 0.6520
Epoch 80/100
39/39 [=====] - 0s 2ms/step - loss: 0.6352 - accuracy: 0.6504
Epoch 81/100
39/39 [=====] - 0s 2ms/step - loss: 0.6336 - accuracy: 0.6667
Epoch 82/100

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39/39 [=====] - 0s 2ms/step - loss: 0.6351 - accuracy: 0.6634
Epoch 83/100
39/39 [=====] - 0s 3ms/step - loss: 0.6370 - accuracy: 0.6748
Epoch 84/100
39/39 [=====] - 0s 2ms/step - loss: 0.6308 - accuracy: 0.6732
Epoch 85/100
39/39 [=====] - 0s 2ms/step - loss: 0.6354 - accuracy: 0.6683
Epoch 86/100
39/39 [=====] - 0s 2ms/step - loss: 0.6320 - accuracy: 0.6992
Epoch 87/100
39/39 [=====] - 0s 2ms/step - loss: 0.6305 - accuracy: 0.6846
Epoch 88/100
39/39 [=====] - 0s 2ms/step - loss: 0.6197 - accuracy: 0.7073
Epoch 89/100
39/39 [=====] - 0s 2ms/step - loss: 0.6309 - accuracy: 0.6829
Epoch 90/100
39/39 [=====] - 0s 3ms/step - loss: 0.6332 - accuracy: 0.6911
Epoch 91/100
39/39 [=====] - 0s 3ms/step - loss: 0.6201 - accuracy: 0.6878
Epoch 92/100
39/39 [=====] - 0s 2ms/step - loss: 0.6166 - accuracy: 0.6959
Epoch 93/100
39/39 [=====] - 0s 2ms/step - loss: 0.6120 - accuracy: 0.7008
Epoch 94/100
39/39 [=====] - 0s 2ms/step - loss: 0.6314 - accuracy: 0.6829
Epoch 95/100
39/39 [=====] - 0s 2ms/step - loss: 0.6235 - accuracy: 0.6894
Epoch 96/100
39/39 [=====] - 0s 1ms/step - loss: 0.6250 - accuracy: 0.6797
Epoch 97/100
39/39 [=====] - 0s 2ms/step - loss: 0.6194 - accuracy: 0.6715
Epoch 98/100
39/39 [=====] - 0s 2ms/step - loss: 0.6270 - accuracy: 0.6911
Epoch 99/100
39/39 [=====] - 0s 3ms/step - loss: 0.6152 - accuracy: 0.6829
Epoch 100/100
39/39 [=====] - 0s 3ms/step - loss: 0.6164 - accuracy: 0.6959
10/10 [=====] - 0s 1ms/step - loss: 0.6455 - accuracy: 0.6667
Epoch 1/100
39/39 [=====] - 0s 1ms/step - loss: 7.9529 - accuracy: 0.6368
Epoch 2/100
39/39 [=====] - 0s 1ms/step - loss: 3.1268 - accuracy: 0.6515
Epoch 3/100
39/39 [=====] - 0s 1ms/step - loss: 1.7920 - accuracy: 0.6515
Epoch 4/100
39/39 [=====] - 0s 1ms/step - loss: 1.1802 - accuracy: 0.6515
Epoch 5/100
39/39 [=====] - 0s 2ms/step - loss: 0.8991 - accuracy: 0.6515
Epoch 6/100
39/39 [=====] - 0s 2ms/step - loss: 0.7693 - accuracy: 0.6515
Epoch 7/100
39/39 [=====] - 0s 3ms/step - loss: 0.7088 - accuracy: 0.6515
Epoch 8/100
39/39 [=====] - 0s 2ms/step - loss: 0.6802 - accuracy: 0.6515
Epoch 9/100
39/39 [=====] - 0s 2ms/step - loss: 0.6662 - accuracy: 0.6515
Epoch 10/100
39/39 [=====] - 0s 2ms/step - loss: 0.6590 - accuracy: 0.6515
Epoch 11/100
39/39 [=====] - 0s 1ms/step - loss: 0.6551 - accuracy: 0.6515
Epoch 12/100
39/39 [=====] - 0s 2ms/step - loss: 0.6529 - accuracy: 0.6515
Epoch 13/100
39/39 [=====] - 0s 2ms/step - loss: 0.6515 - accuracy: 0.6515
Epoch 14/100
39/39 [=====] - 0s 2ms/step - loss: 0.6504 - accuracy: 0.6515
Epoch 15/100
39/39 [=====] - 0s 2ms/step - loss: 0.6498 - accuracy: 0.6515
Epoch 16/100
39/39 [=====] - 0s 2ms/step - loss: 0.6492 - accuracy: 0.6515
Epoch 17/100
39/39 [=====] - 0s 2ms/step - loss: 0.6488 - accuracy: 0.6515
Epoch 18/100
39/39 [=====] - 0s 2ms/step - loss: 0.6485 - accuracy: 0.6515
Epoch 19/100
39/39 [=====] - 0s 2ms/step - loss: 0.6482 - accuracy: 0.6515
Epoch 20/100
39/39 [=====] - 0s 2ms/step - loss: 0.6480 - accuracy: 0.6515
Epoch 21/100
39/39 [=====] - 0s 2ms/step - loss: 0.6478 - accuracy: 0.6515
Epoch 22/100
39/39 [=====] - 0s 2ms/step - loss: 0.6476 - accuracy: 0.6515
```

[illegible]

Epoch 64/100
39/39 [=====] - 0s 3ms/step - loss: 0.6441 - accuracy: 0.6515
Epoch 65/100
39/39 [=====] - 0s 2ms/step - loss: 0.6437 - accuracy: 0.6515
Epoch 66/100
39/39 [=====] - 0s 2ms/step - loss: 0.6438 - accuracy: 0.6515
Epoch 67/100
39/39 [=====] - 0s 2ms/step - loss: 0.6429 - accuracy: 0.6515
Epoch 68/100
39/39 [=====] - 0s 2ms/step - loss: 0.6438 - accuracy: 0.6515
Epoch 69/100
39/39 [=====] - 0s 2ms/step - loss: 0.6433 - accuracy: 0.6515
Epoch 70/100
39/39 [=====] - 0s 2ms/step - loss: 0.6433 - accuracy: 0.6515
Epoch 71/100
39/39 [=====] - 0s 3ms/step - loss: 0.6434 - accuracy: 0.6515
Epoch 72/100
39/39 [=====] - 0s 2ms/step - loss: 0.6438 - accuracy: 0.6515
Epoch 73/100
39/39 [=====] - 0s 2ms/step - loss: 0.6429 - accuracy: 0.6515
Epoch 74/100
39/39 [=====] - 0s 2ms/step - loss: 0.6422 - accuracy: 0.6515
Epoch 75/100
39/39 [=====] - 0s 2ms/step - loss: 0.6427 - accuracy: 0.6515
Epoch 76/100
39/39 [=====] - 0s 2ms/step - loss: 0.6436 - accuracy: 0.6515
Epoch 77/100
39/39 [=====] - 0s 2ms/step - loss: 0.6424 - accuracy: 0.6515
Epoch 78/100
39/39 [=====] - 0s 2ms/step - loss: 0.6428 - accuracy: 0.6515
Epoch 79/100
39/39 [=====] - 0s 2ms/step - loss: 0.6424 - accuracy: 0.6515
Epoch 80/100
39/39 [=====] - 0s 2ms/step - loss: 0.6416 - accuracy: 0.6515
Epoch 81/100
39/39 [=====] - 0s 2ms/step - loss: 0.6427 - accuracy: 0.6515
Epoch 82/100
39/39 [=====] - 0s 2ms/step - loss: 0.6406 - accuracy: 0.6515
Epoch 83/100
39/39 [=====] - 0s 2ms/step - loss: 0.6418 - accuracy: 0.6515
Epoch 84/100
39/39 [=====] - 0s 3ms/step - loss: 0.6425 - accuracy: 0.6515
Epoch 85/100
39/39 [=====] - 0s 3ms/step - loss: 0.6412 - accuracy: 0.6515
Epoch 86/100
39/39 [=====] - 0s 2ms/step - loss: 0.6409 - accuracy: 0.6515
Epoch 87/100
39/39 [=====] - 0s 2ms/step - loss: 0.6407 - accuracy: 0.6515
Epoch 88/100
39/39 [=====] - 0s 2ms/step - loss: 0.6416 - accuracy: 0.6515
Epoch 89/100
39/39 [=====] - 0s 2ms/step - loss: 0.6407 - accuracy: 0.6515
Epoch 90/100
39/39 [=====] - 0s 2ms/step - loss: 0.6398 - accuracy: 0.6515
Epoch 91/100
39/39 [=====] - 0s 2ms/step - loss: 0.6394 - accuracy: 0.6515
Epoch 92/100
39/39 [=====] - 0s 1ms/step - loss: 0.6410 - accuracy: 0.6515
Epoch 93/100
39/39 [=====] - 0s 2ms/step - loss: 0.6407 - accuracy: 0.6515
Epoch 94/100
39/39 [=====] - 0s 2ms/step - loss: 0.6405 - accuracy: 0.6515
Epoch 95/100
39/39 [=====] - 0s 1ms/step - loss: 0.6405 - accuracy: 0.6515
Epoch 96/100
39/39 [=====] - 0s 2ms/step - loss: 0.6389 - accuracy: 0.6515
Epoch 97/100
39/39 [=====] - 0s 2ms/step - loss: 0.6389 - accuracy: 0.6515
Epoch 98/100
39/39 [=====] - 0s 4ms/step - loss: 0.6385 - accuracy: 0.6515
Epoch 99/100
39/39 [=====] - 0s 2ms/step - loss: 0.6395 - accuracy: 0.6515
Epoch 100/100
39/39 [=====] - 0s 2ms/step - loss: 0.6388 - accuracy: 0.6515
10/10 [=====] - 0s 2ms/step - loss: 0.6397 - accuracy: 0.6494
Epoch 1/100
39/39 [=====] - 1s 3ms/step - loss: 8.0534 - accuracy: 0.6466
Epoch 2/100
39/39 [=====] - 0s 2ms/step - loss: 3.5583 - accuracy: 0.6710
Epoch 3/100
39/39 [=====] - 0s 2ms/step - loss: 1.9851 - accuracy: 0.6661
Epoch 4/100

39/39 [=====] - 0s 2ms/step - loss: 1.2680 - accuracy: 0.6694
Epoch 5/100
39/39 [=====] - 0s 2ms/step - loss: 0.9371 - accuracy: 0.6661
Epoch 6/100
39/39 [=====] - 0s 4ms/step - loss: 0.7889 - accuracy: 0.6678
Epoch 7/100
39/39 [=====] - 0s 2ms/step - loss: 0.7191 - accuracy: 0.6678
Epoch 8/100
39/39 [=====] - 0s 3ms/step - loss: 0.6862 - accuracy: 0.6678
Epoch 9/100
39/39 [=====] - 0s 2ms/step - loss: 0.6708 - accuracy: 0.6678
Epoch 10/100
39/39 [=====] - 0s 4ms/step - loss: 0.6622 - accuracy: 0.6678
Epoch 11/100
39/39 [=====] - 0s 2ms/step - loss: 0.6571 - accuracy: 0.6678
Epoch 12/100
39/39 [=====] - 0s 2ms/step - loss: 0.6544 - accuracy: 0.6678
Epoch 13/100
39/39 [=====] - 0s 1ms/step - loss: 0.6512 - accuracy: 0.6678
Epoch 14/100
39/39 [=====] - 0s 2ms/step - loss: 0.6498 - accuracy: 0.6678
Epoch 15/100
39/39 [=====] - 0s 2ms/step - loss: 0.6477 - accuracy: 0.6678
Epoch 16/100
39/39 [=====] - 0s 2ms/step - loss: 0.6459 - accuracy: 0.6678
Epoch 17/100
39/39 [=====] - 0s 2ms/step - loss: 0.6455 - accuracy: 0.6678
Epoch 18/100
39/39 [=====] - 0s 2ms/step - loss: 0.6440 - accuracy: 0.6678
Epoch 19/100
39/39 [=====] - 0s 2ms/step - loss: 0.6424 - accuracy: 0.6678
Epoch 20/100
39/39 [=====] - 0s 2ms/step - loss: 0.6416 - accuracy: 0.6678
Epoch 21/100
39/39 [=====] - 0s 2ms/step - loss: 0.6405 - accuracy: 0.6678
Epoch 22/100
39/39 [=====] - 0s 2ms/step - loss: 0.6397 - accuracy: 0.6678
Epoch 23/100
39/39 [=====] - 0s 2ms/step - loss: 0.6393 - accuracy: 0.6678
Epoch 24/100
39/39 [=====] - 0s 3ms/step - loss: 0.6385 - accuracy: 0.6678
Epoch 25/100
39/39 [=====] - 0s 3ms/step - loss: 0.6378 - accuracy: 0.6678
Epoch 26/100
39/39 [=====] - 0s 2ms/step - loss: 0.6373 - accuracy: 0.6678
Epoch 27/100
39/39 [=====] - 0s 2ms/step - loss: 0.6370 - accuracy: 0.6678
Epoch 28/100
39/39 [=====] - 0s 2ms/step - loss: 0.6366 - accuracy: 0.6678
Epoch 29/100
39/39 [=====] - 0s 2ms/step - loss: 0.6363 - accuracy: 0.6678
Epoch 30/100
39/39 [=====] - 0s 2ms/step - loss: 0.6362 - accuracy: 0.6678
Epoch 31/100
39/39 [=====] - 0s 2ms/step - loss: 0.6357 - accuracy: 0.6678
Epoch 32/100
39/39 [=====] - 0s 2ms/step - loss: 0.6356 - accuracy: 0.6678
Epoch 33/100
39/39 [=====] - 0s 2ms/step - loss: 0.6355 - accuracy: 0.6678
Epoch 34/100
39/39 [=====] - 0s 2ms/step - loss: 0.6352 - accuracy: 0.6678
Epoch 35/100
39/39 [=====] - 0s 2ms/step - loss: 0.6351 - accuracy: 0.6678
Epoch 36/100
39/39 [=====] - 0s 2ms/step - loss: 0.6352 - accuracy: 0.6678
Epoch 37/100
39/39 [=====] - 0s 2ms/step - loss: 0.6350 - accuracy: 0.6678
Epoch 38/100
39/39 [=====] - 0s 2ms/step - loss: 0.6347 - accuracy: 0.6678
Epoch 39/100
39/39 [=====] - 0s 2ms/step - loss: 0.6346 - accuracy: 0.6678
Epoch 40/100
39/39 [=====] - 0s 2ms/step - loss: 0.6345 - accuracy: 0.6678
Epoch 41/100
39/39 [=====] - 0s 2ms/step - loss: 0.6344 - accuracy: 0.6678
Epoch 42/100
39/39 [=====] - 0s 3ms/step - loss: 0.6343 - accuracy: 0.6678
Epoch 43/100
39/39 [=====] - 0s 3ms/step - loss: 0.6342 - accuracy: 0.6678
Epoch 44/100
39/39 [=====] - 0s 4ms/step - loss: 0.6340 - accuracy: 0.6678
Epoch 45/100

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39/39 [=====] - 0s 4ms/step - loss: 0.6337 - accuracy: 0.6678
Epoch 46/100
39/39 [=====] - 0s 4ms/step - loss: 0.6337 - accuracy: 0.6678
Epoch 47/100
39/39 [=====] - 0s 4ms/step - loss: 0.6335 - accuracy: 0.6678
Epoch 48/100
39/39 [=====] - 0s 4ms/step - loss: 0.6329 - accuracy: 0.6678
Epoch 49/100
39/39 [=====] - 0s 3ms/step - loss: 0.6326 - accuracy: 0.6678
Epoch 50/100
39/39 [=====] - 0s 2ms/step - loss: 0.6315 - accuracy: 0.6678
Epoch 51/100
39/39 [=====] - 0s 4ms/step - loss: 0.6315 - accuracy: 0.6678
Epoch 52/100
39/39 [=====] - 0s 4ms/step - loss: 0.6303 - accuracy: 0.6678
Epoch 53/100
39/39 [=====] - 0s 4ms/step - loss: 0.6301 - accuracy: 0.6678
Epoch 54/100
39/39 [=====] - 0s 3ms/step - loss: 0.6306 - accuracy: 0.6678
Epoch 55/100
39/39 [=====] - 0s 2ms/step - loss: 0.6300 - accuracy: 0.6678
Epoch 56/100
39/39 [=====] - 0s 3ms/step - loss: 0.6265 - accuracy: 0.6759
Epoch 57/100
39/39 [=====] - 0s 3ms/step - loss: 0.6322 - accuracy: 0.6678
Epoch 58/100
39/39 [=====] - 0s 3ms/step - loss: 0.6287 - accuracy: 0.6710
Epoch 59/100
39/39 [=====] - 0s 4ms/step - loss: 0.6280 - accuracy: 0.6759
Epoch 60/100
39/39 [=====] - 0s 3ms/step - loss: 0.6282 - accuracy: 0.6775
Epoch 61/100
39/39 [=====] - 0s 3ms/step - loss: 0.6261 - accuracy: 0.6775
Epoch 62/100
39/39 [=====] - 0s 3ms/step - loss: 0.6264 - accuracy: 0.6743
Epoch 63/100
39/39 [=====] - 0s 3ms/step - loss: 0.6258 - accuracy: 0.6726
Epoch 64/100
39/39 [=====] - 0s 3ms/step - loss: 0.6260 - accuracy: 0.6743
Epoch 65/100
39/39 [=====] - 0s 3ms/step - loss: 0.6244 - accuracy: 0.6775
Epoch 66/100
39/39 [=====] - 0s 3ms/step - loss: 0.6238 - accuracy: 0.6759
Epoch 67/100
39/39 [=====] - 0s 4ms/step - loss: 0.6216 - accuracy: 0.6775
Epoch 68/100
39/39 [=====] - 0s 3ms/step - loss: 0.6233 - accuracy: 0.6824
Epoch 69/100
39/39 [=====] - 0s 3ms/step - loss: 0.6210 - accuracy: 0.6840
Epoch 70/100
39/39 [=====] - 0s 4ms/step - loss: 0.6182 - accuracy: 0.6678
Epoch 71/100
39/39 [=====] - 0s 3ms/step - loss: 0.6198 - accuracy: 0.6906
Epoch 72/100
39/39 [=====] - 0s 4ms/step - loss: 0.6237 - accuracy: 0.6726
Epoch 73/100
39/39 [=====] - 0s 3ms/step - loss: 0.6199 - accuracy: 0.6987
Epoch 74/100
39/39 [=====] - 0s 3ms/step - loss: 0.6236 - accuracy: 0.6759
Epoch 75/100
39/39 [=====] - 0s 4ms/step - loss: 0.6206 - accuracy: 0.6922
Epoch 76/100
39/39 [=====] - 0s 3ms/step - loss: 0.6162 - accuracy: 0.6857
Epoch 77/100
39/39 [=====] - 0s 3ms/step - loss: 0.6219 - accuracy: 0.6743
Epoch 78/100
39/39 [=====] - 0s 3ms/step - loss: 0.6195 - accuracy: 0.6743
Epoch 79/100
39/39 [=====] - 0s 2ms/step - loss: 0.6169 - accuracy: 0.6775
Epoch 80/100
39/39 [=====] - 0s 4ms/step - loss: 0.6148 - accuracy: 0.7020
Epoch 81/100
39/39 [=====] - 0s 3ms/step - loss: 0.6232 - accuracy: 0.6857
Epoch 82/100
39/39 [=====] - 0s 3ms/step - loss: 0.6165 - accuracy: 0.6873
Epoch 83/100
39/39 [=====] - 0s 2ms/step - loss: 0.6185 - accuracy: 0.6808
Epoch 84/100
39/39 [=====] - 0s 3ms/step - loss: 0.6213 - accuracy: 0.6792
Epoch 85/100
39/39 [=====] - 0s 3ms/step - loss: 0.6217 - accuracy: 0.6840
Epoch 86/100
```

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39/39 [=====] - 0s 2ms/step - loss: 0.6146 - accuracy: 0.6922
Epoch 87/100
39/39 [=====] - 0s 2ms/step - loss: 0.6195 - accuracy: 0.6922
Epoch 88/100
39/39 [=====] - 0s 2ms/step - loss: 0.6060 - accuracy: 0.7068
Epoch 89/100
39/39 [=====] - 0s 2ms/step - loss: 0.6096 - accuracy: 0.6889
Epoch 90/100
39/39 [=====] - 0s 2ms/step - loss: 0.6181 - accuracy: 0.6840
Epoch 91/100
39/39 [=====] - 0s 2ms/step - loss: 0.6124 - accuracy: 0.6938
Epoch 92/100
39/39 [=====] - 0s 2ms/step - loss: 0.6116 - accuracy: 0.6759
Epoch 93/100
39/39 [=====] - 0s 3ms/step - loss: 0.6124 - accuracy: 0.6954
Epoch 94/100
39/39 [=====] - 0s 2ms/step - loss: 0.6163 - accuracy: 0.6938
Epoch 95/100
39/39 [=====] - 0s 3ms/step - loss: 0.6092 - accuracy: 0.6971
Epoch 96/100
39/39 [=====] - 0s 3ms/step - loss: 0.6064 - accuracy: 0.6971
Epoch 97/100
39/39 [=====] - 0s 2ms/step - loss: 0.6141 - accuracy: 0.6906
Epoch 98/100
39/39 [=====] - 0s 2ms/step - loss: 0.6224 - accuracy: 0.6808
Epoch 99/100
39/39 [=====] - 0s 2ms/step - loss: 0.6166 - accuracy: 0.6726
Epoch 100/100
39/39 [=====] - 0s 2ms/step - loss: 0.6204 - accuracy: 0.6808
10/10 [=====] - 0s 1ms/step - loss: 0.6601 - accuracy: 0.5974
Epoch 1/100
39/39 [=====] - 1s 2ms/step - loss: 8.2489 - accuracy: 0.5537
Epoch 2/100
39/39 [=====] - 0s 3ms/step - loss: 3.3742 - accuracy: 0.6433
Epoch 3/100
39/39 [=====] - 0s 2ms/step - loss: 1.8943 - accuracy: 0.6564
Epoch 4/100
39/39 [=====] - 0s 4ms/step - loss: 1.2258 - accuracy: 0.6564
Epoch 5/100
39/39 [=====] - 0s 3ms/step - loss: 0.9211 - accuracy: 0.6564
Epoch 6/100
39/39 [=====] - 0s 2ms/step - loss: 0.7812 - accuracy: 0.6564
Epoch 7/100
39/39 [=====] - 0s 3ms/step - loss: 0.7143 - accuracy: 0.6564
Epoch 8/100
39/39 [=====] - 0s 3ms/step - loss: 0.6860 - accuracy: 0.6564
Epoch 9/100
39/39 [=====] - 0s 4ms/step - loss: 0.6701 - accuracy: 0.6564
Epoch 10/100
39/39 [=====] - 0s 3ms/step - loss: 0.6601 - accuracy: 0.6564
Epoch 11/100
39/39 [=====] - 0s 4ms/step - loss: 0.6596 - accuracy: 0.6564
Epoch 12/100
39/39 [=====] - 0s 3ms/step - loss: 0.6541 - accuracy: 0.6564
Epoch 13/100
39/39 [=====] - 0s 4ms/step - loss: 0.6555 - accuracy: 0.6564
Epoch 14/100
39/39 [=====] - 0s 4ms/step - loss: 0.6477 - accuracy: 0.6564
Epoch 15/100
39/39 [=====] - 0s 4ms/step - loss: 0.6536 - accuracy: 0.6564
Epoch 16/100
39/39 [=====] - 0s 5ms/step - loss: 0.6514 - accuracy: 0.6564
Epoch 17/100
39/39 [=====] - 0s 3ms/step - loss: 0.6492 - accuracy: 0.6564
Epoch 18/100
39/39 [=====] - 0s 2ms/step - loss: 0.6467 - accuracy: 0.6564
Epoch 19/100
39/39 [=====] - 0s 3ms/step - loss: 0.6455 - accuracy: 0.6564
Epoch 20/100
39/39 [=====] - 0s 3ms/step - loss: 0.6473 - accuracy: 0.6564
Epoch 21/100
39/39 [=====] - 0s 3ms/step - loss: 0.6497 - accuracy: 0.6564
Epoch 22/100
39/39 [=====] - 0s 2ms/step - loss: 0.6432 - accuracy: 0.6564
Epoch 23/100
39/39 [=====] - 0s 2ms/step - loss: 0.6455 - accuracy: 0.6564
Epoch 24/100
39/39 [=====] - 0s 2ms/step - loss: 0.6466 - accuracy: 0.6564
Epoch 25/100
39/39 [=====] - 0s 2ms/step - loss: 0.6430 - accuracy: 0.6564
Epoch 26/100
39/39 [=====] - 0s 2ms/step - loss: 0.6425 - accuracy: 0.6564
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Epoch 27/100
39/39 [=====] - 0s 2ms/step - loss: 0.6413 - accuracy: 0.6564
Epoch 28/100
39/39 [=====] - 0s 3ms/step - loss: 0.6415 - accuracy: 0.6564
Epoch 29/100
39/39 [=====] - 0s 3ms/step - loss: 0.6414 - accuracy: 0.6564
Epoch 30/100
39/39 [=====] - 0s 2ms/step - loss: 0.6408 - accuracy: 0.6564
Epoch 31/100
39/39 [=====] - 0s 2ms/step - loss: 0.6408 - accuracy: 0.6564
Epoch 32/100
39/39 [=====] - 0s 2ms/step - loss: 0.6405 - accuracy: 0.6564
Epoch 33/100
39/39 [=====] - 0s 2ms/step - loss: 0.6396 - accuracy: 0.6564
Epoch 34/100
39/39 [=====] - 0s 2ms/step - loss: 0.6387 - accuracy: 0.6564
Epoch 35/100
39/39 [=====] - 0s 2ms/step - loss: 0.6380 - accuracy: 0.6564
Epoch 36/100
39/39 [=====] - 0s 2ms/step - loss: 0.6372 - accuracy: 0.6564
Epoch 37/100
39/39 [=====] - 0s 3ms/step - loss: 0.6400 - accuracy: 0.6564
Epoch 38/100
39/39 [=====] - 0s 2ms/step - loss: 0.6389 - accuracy: 0.6564
Epoch 39/100
39/39 [=====] - 0s 2ms/step - loss: 0.6377 - accuracy: 0.6564
Epoch 40/100
39/39 [=====] - 0s 3ms/step - loss: 0.6374 - accuracy: 0.6564
Epoch 41/100
39/39 [=====] - 0s 2ms/step - loss: 0.6373 - accuracy: 0.6564
Epoch 42/100
39/39 [=====] - 0s 2ms/step - loss: 0.6346 - accuracy: 0.6564
Epoch 43/100
39/39 [=====] - 0s 3ms/step - loss: 0.6341 - accuracy: 0.6564
Epoch 44/100
39/39 [=====] - 0s 2ms/step - loss: 0.6353 - accuracy: 0.6564
Epoch 45/100
39/39 [=====] - 0s 2ms/step - loss: 0.6361 - accuracy: 0.6564
Epoch 46/100
39/39 [=====] - 0s 2ms/step - loss: 0.6334 - accuracy: 0.6564
Epoch 47/100
39/39 [=====] - 0s 2ms/step - loss: 0.6326 - accuracy: 0.6564
Epoch 48/100
39/39 [=====] - 0s 2ms/step - loss: 0.6350 - accuracy: 0.6564
Epoch 49/100
39/39 [=====] - 0s 3ms/step - loss: 0.6359 - accuracy: 0.6564
Epoch 50/100
39/39 [=====] - 0s 3ms/step - loss: 0.6340 - accuracy: 0.6564
Epoch 51/100
39/39 [=====] - 0s 3ms/step - loss: 0.6321 - accuracy: 0.6564
Epoch 52/100
39/39 [=====] - 0s 2ms/step - loss: 0.6329 - accuracy: 0.6564
Epoch 53/100
39/39 [=====] - 0s 2ms/step - loss: 0.6341 - accuracy: 0.6564
Epoch 54/100
39/39 [=====] - 0s 2ms/step - loss: 0.6321 - accuracy: 0.6564
Epoch 55/100
39/39 [=====] - 0s 3ms/step - loss: 0.6284 - accuracy: 0.6564
Epoch 56/100
39/39 [=====] - 0s 4ms/step - loss: 0.6338 - accuracy: 0.6564
Epoch 57/100
39/39 [=====] - 0s 3ms/step - loss: 0.6322 - accuracy: 0.6564
Epoch 58/100
39/39 [=====] - 0s 2ms/step - loss: 0.6312 - accuracy: 0.6564
Epoch 59/100
39/39 [=====] - 0s 2ms/step - loss: 0.6296 - accuracy: 0.6564
Epoch 60/100
39/39 [=====] - 0s 2ms/step - loss: 0.6322 - accuracy: 0.6564
Epoch 61/100
39/39 [=====] - 0s 3ms/step - loss: 0.6311 - accuracy: 0.6564
Epoch 62/100
39/39 [=====] - 0s 2ms/step - loss: 0.6294 - accuracy: 0.6564
Epoch 63/100
39/39 [=====] - 0s 2ms/step - loss: 0.6306 - accuracy: 0.6564
Epoch 64/100
39/39 [=====] - 0s 2ms/step - loss: 0.6323 - accuracy: 0.6564
Epoch 65/100
39/39 [=====] - 0s 2ms/step - loss: 0.6298 - accuracy: 0.6564
Epoch 66/100
39/39 [=====] - 0s 2ms/step - loss: 0.6282 - accuracy: 0.6564
Epoch 67/100
39/39 [=====] - 0s 2ms/step - loss: 0.6317 - accuracy: 0.6564

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Epoch 68/100
39/39 [=====] - 0s 2ms/step - loss: 0.6286 - accuracy: 0.6564
Epoch 69/100
39/39 [=====] - 0s 2ms/step - loss: 0.6300 - accuracy: 0.6564
Epoch 70/100
39/39 [=====] - 0s 2ms/step - loss: 0.6344 - accuracy: 0.6564
Epoch 71/100
39/39 [=====] - 0s 2ms/step - loss: 0.6267 - accuracy: 0.6564
Epoch 72/100
39/39 [=====] - 0s 2ms/step - loss: 0.6289 - accuracy: 0.6564
Epoch 73/100
39/39 [=====] - 0s 2ms/step - loss: 0.6300 - accuracy: 0.6564
Epoch 74/100
39/39 [=====] - 0s 2ms/step - loss: 0.6277 - accuracy: 0.6564
Epoch 75/100
39/39 [=====] - 0s 2ms/step - loss: 0.6312 - accuracy: 0.6564
Epoch 76/100
39/39 [=====] - 0s 3ms/step - loss: 0.6281 - accuracy: 0.6564
Epoch 77/100
39/39 [=====] - 0s 2ms/step - loss: 0.6276 - accuracy: 0.6564
Epoch 78/100
39/39 [=====] - 0s 2ms/step - loss: 0.6304 - accuracy: 0.6564
Epoch 79/100
39/39 [=====] - 0s 2ms/step - loss: 0.6252 - accuracy: 0.6564
Epoch 80/100
39/39 [=====] - 0s 2ms/step - loss: 0.6223 - accuracy: 0.6564
Epoch 81/100
39/39 [=====] - 0s 3ms/step - loss: 0.6301 - accuracy: 0.6564
Epoch 82/100
39/39 [=====] - 0s 2ms/step - loss: 0.6309 - accuracy: 0.6564
Epoch 83/100
39/39 [=====] - 0s 2ms/step - loss: 0.6268 - accuracy: 0.6564
Epoch 84/100
39/39 [=====] - 0s 2ms/step - loss: 0.6274 - accuracy: 0.6564
Epoch 85/100
39/39 [=====] - 0s 2ms/step - loss: 0.6286 - accuracy: 0.6564
Epoch 86/100
39/39 [=====] - 0s 2ms/step - loss: 0.6257 - accuracy: 0.6564
Epoch 87/100
39/39 [=====] - 0s 3ms/step - loss: 0.6245 - accuracy: 0.6564
Epoch 88/100
39/39 [=====] - 0s 3ms/step - loss: 0.6373 - accuracy: 0.6564
Epoch 89/100
39/39 [=====] - 0s 4ms/step - loss: 0.6214 - accuracy: 0.6564
Epoch 90/100
39/39 [=====] - 0s 3ms/step - loss: 0.6271 - accuracy: 0.6564
Epoch 91/100
39/39 [=====] - 0s 2ms/step - loss: 0.6244 - accuracy: 0.6564
Epoch 92/100
39/39 [=====] - 0s 2ms/step - loss: 0.6220 - accuracy: 0.6564
Epoch 93/100
39/39 [=====] - 0s 2ms/step - loss: 0.6262 - accuracy: 0.6564
Epoch 94/100
39/39 [=====] - 0s 2ms/step - loss: 0.6252 - accuracy: 0.6564
Epoch 95/100
39/39 [=====] - 0s 2ms/step - loss: 0.6363 - accuracy: 0.6564
Epoch 96/100
39/39 [=====] - 0s 2ms/step - loss: 0.6285 - accuracy: 0.6564
Epoch 97/100
39/39 [=====] - 0s 2ms/step - loss: 0.6204 - accuracy: 0.6564
Epoch 98/100
39/39 [=====] - 0s 2ms/step - loss: 0.6256 - accuracy: 0.6564
Epoch 99/100
39/39 [=====] - 0s 2ms/step - loss: 0.6249 - accuracy: 0.6564
Epoch 100/100
39/39 [=====] - 0s 2ms/step - loss: 0.6277 - accuracy: 0.6564
10/10 [=====] - 0s 2ms/step - loss: 0.6311 - accuracy: 0.6299
Epoch 1/100
39/39 [=====] - 1s 2ms/step - loss: 6.1159 - accuracy: 0.6081
Epoch 2/100
39/39 [=====] - 0s 2ms/step - loss: 3.0827 - accuracy: 0.6325
Epoch 3/100
39/39 [=====] - 0s 2ms/step - loss: 1.7702 - accuracy: 0.6439
Epoch 4/100
39/39 [=====] - 0s 2ms/step - loss: 1.1667 - accuracy: 0.6439
Epoch 5/100
39/39 [=====] - 0s 2ms/step - loss: 0.9016 - accuracy: 0.6358
Epoch 6/100
39/39 [=====] - 0s 2ms/step - loss: 0.7803 - accuracy: 0.6325
Epoch 7/100
39/39 [=====] - 0s 2ms/step - loss: 0.7204 - accuracy: 0.6390
Epoch 8/100
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39/39 [=====] - 0s 2ms/step - loss: 0.6981 - accuracy: 0.6309
Epoch 9/100
39/39 [=====] - 0s 2ms/step - loss: 0.6815 - accuracy: 0.6276
Epoch 10/100
39/39 [=====] - 0s 2ms/step - loss: 0.6760 - accuracy: 0.6325
Epoch 11/100
39/39 [=====] - 0s 2ms/step - loss: 0.6746 - accuracy: 0.6244
Epoch 12/100
39/39 [=====] - 0s 2ms/step - loss: 0.6690 - accuracy: 0.6455
Epoch 13/100
39/39 [=====] - 0s 2ms/step - loss: 0.6650 - accuracy: 0.6309
Epoch 14/100
39/39 [=====] - 0s 4ms/step - loss: 0.6649 - accuracy: 0.6358
Epoch 15/100
39/39 [=====] - 0s 3ms/step - loss: 0.6622 - accuracy: 0.6488
Epoch 16/100
39/39 [=====] - 0s 2ms/step - loss: 0.6666 - accuracy: 0.6211
Epoch 17/100
39/39 [=====] - 0s 2ms/step - loss: 0.6624 - accuracy: 0.6390
Epoch 18/100
39/39 [=====] - 0s 2ms/step - loss: 0.6602 - accuracy: 0.6439
Epoch 19/100
39/39 [=====] - 0s 2ms/step - loss: 0.6599 - accuracy: 0.6325
Epoch 20/100
39/39 [=====] - 0s 2ms/step - loss: 0.6557 - accuracy: 0.6504
Epoch 21/100
39/39 [=====] - 0s 2ms/step - loss: 0.6589 - accuracy: 0.6358
Epoch 22/100
39/39 [=====] - 0s 2ms/step - loss: 0.6567 - accuracy: 0.6423
Epoch 23/100
39/39 [=====] - 0s 2ms/step - loss: 0.6550 - accuracy: 0.6439
Epoch 24/100
39/39 [=====] - 0s 2ms/step - loss: 0.6559 - accuracy: 0.6260
Epoch 25/100
39/39 [=====] - 0s 2ms/step - loss: 0.6557 - accuracy: 0.6374
Epoch 26/100
39/39 [=====] - 0s 2ms/step - loss: 0.6527 - accuracy: 0.6358
Epoch 27/100
39/39 [=====] - 0s 4ms/step - loss: 0.6535 - accuracy: 0.6683
Epoch 28/100
39/39 [=====] - 0s 2ms/step - loss: 0.6532 - accuracy: 0.6390
Epoch 29/100
39/39 [=====] - 0s 2ms/step - loss: 0.6462 - accuracy: 0.6618
Epoch 30/100
39/39 [=====] - 0s 2ms/step - loss: 0.6559 - accuracy: 0.6374
Epoch 31/100
39/39 [=====] - 0s 2ms/step - loss: 0.6493 - accuracy: 0.6472
Epoch 32/100
39/39 [=====] - 0s 2ms/step - loss: 0.6535 - accuracy: 0.6423
Epoch 33/100
39/39 [=====] - 0s 2ms/step - loss: 0.6453 - accuracy: 0.6683
Epoch 34/100
39/39 [=====] - 0s 2ms/step - loss: 0.6522 - accuracy: 0.6407
Epoch 35/100
39/39 [=====] - 0s 2ms/step - loss: 0.6499 - accuracy: 0.6423
Epoch 36/100
39/39 [=====] - 0s 2ms/step - loss: 0.6466 - accuracy: 0.6537
Epoch 37/100
39/39 [=====] - 0s 2ms/step - loss: 0.6437 - accuracy: 0.6439
Epoch 38/100
39/39 [=====] - 0s 2ms/step - loss: 0.6436 - accuracy: 0.6504
Epoch 39/100
39/39 [=====] - 0s 2ms/step - loss: 0.6538 - accuracy: 0.6488
Epoch 40/100
39/39 [=====] - 0s 3ms/step - loss: 0.6477 - accuracy: 0.6537
Epoch 41/100
39/39 [=====] - 0s 3ms/step - loss: 0.6473 - accuracy: 0.6439
Epoch 42/100
39/39 [=====] - 0s 2ms/step - loss: 0.6479 - accuracy: 0.6390
Epoch 43/100
39/39 [=====] - 0s 2ms/step - loss: 0.6486 - accuracy: 0.6390
Epoch 44/100
39/39 [=====] - 0s 2ms/step - loss: 0.6352 - accuracy: 0.6602
Epoch 45/100
39/39 [=====] - 0s 2ms/step - loss: 0.6476 - accuracy: 0.6602
Epoch 46/100
39/39 [=====] - 0s 2ms/step - loss: 0.6424 - accuracy: 0.6439
Epoch 47/100
39/39 [=====] - 0s 2ms/step - loss: 0.6344 - accuracy: 0.6585
Epoch 48/100
39/39 [=====] - 0s 2ms/step - loss: 0.6393 - accuracy: 0.6650
Epoch 49/100
```

39/39 [=====] - 0s 2ms/step - loss: 0.6426 - accuracy: 0.6618
Epoch 50/100
39/39 [=====] - 0s 2ms/step - loss: 0.6463 - accuracy: 0.6634
Epoch 51/100
39/39 [=====] - 0s 2ms/step - loss: 0.6389 - accuracy: 0.6537
Epoch 52/100
39/39 [=====] - 0s 2ms/step - loss: 0.6543 - accuracy: 0.6634
Epoch 53/100
39/39 [=====] - 0s 3ms/step - loss: 0.6425 - accuracy: 0.6455
Epoch 54/100
39/39 [=====] - 0s 2ms/step - loss: 0.6379 - accuracy: 0.6683
Epoch 55/100
39/39 [=====] - 0s 2ms/step - loss: 0.6571 - accuracy: 0.6439
Epoch 56/100
39/39 [=====] - 0s 2ms/step - loss: 0.6432 - accuracy: 0.6520
Epoch 57/100
39/39 [=====] - 0s 2ms/step - loss: 0.6466 - accuracy: 0.6423
Epoch 58/100
39/39 [=====] - 0s 2ms/step - loss: 0.6505 - accuracy: 0.6504
Epoch 59/100
39/39 [=====] - 0s 3ms/step - loss: 0.6655 - accuracy: 0.6390
Epoch 60/100
39/39 [=====] - 0s 2ms/step - loss: 0.6435 - accuracy: 0.6667
Epoch 61/100
39/39 [=====] - 0s 2ms/step - loss: 0.6469 - accuracy: 0.6309
Epoch 62/100
39/39 [=====] - 0s 2ms/step - loss: 0.6432 - accuracy: 0.6602
Epoch 63/100
39/39 [=====] - 0s 2ms/step - loss: 0.6399 - accuracy: 0.6667
Epoch 64/100
39/39 [=====] - 0s 2ms/step - loss: 0.6442 - accuracy: 0.6276
Epoch 65/100
39/39 [=====] - 0s 2ms/step - loss: 0.6506 - accuracy: 0.6537
Epoch 66/100
39/39 [=====] - 0s 3ms/step - loss: 0.6446 - accuracy: 0.6537
Epoch 67/100
39/39 [=====] - 0s 4ms/step - loss: 0.6472 - accuracy: 0.6488
Epoch 68/100
39/39 [=====] - 0s 3ms/step - loss: 0.6422 - accuracy: 0.6553
Epoch 69/100
39/39 [=====] - 0s 3ms/step - loss: 0.6349 - accuracy: 0.6618
Epoch 70/100
39/39 [=====] - 0s 3ms/step - loss: 0.6369 - accuracy: 0.6699
Epoch 71/100
39/39 [=====] - 0s 3ms/step - loss: 0.6455 - accuracy: 0.6520
Epoch 72/100
39/39 [=====] - 0s 2ms/step - loss: 0.6419 - accuracy: 0.6569
Epoch 73/100
39/39 [=====] - 0s 2ms/step - loss: 0.6302 - accuracy: 0.6878
Epoch 74/100
39/39 [=====] - 0s 2ms/step - loss: 0.6428 - accuracy: 0.6715
Epoch 75/100
39/39 [=====] - 0s 2ms/step - loss: 0.6425 - accuracy: 0.6553
Epoch 76/100
39/39 [=====] - 0s 2ms/step - loss: 0.6269 - accuracy: 0.6780
Epoch 77/100
39/39 [=====] - 0s 2ms/step - loss: 0.6427 - accuracy: 0.6585
Epoch 78/100
39/39 [=====] - 0s 2ms/step - loss: 0.6394 - accuracy: 0.6650
Epoch 79/100
39/39 [=====] - 0s 3ms/step - loss: 0.6463 - accuracy: 0.6553
Epoch 80/100
39/39 [=====] - 0s 2ms/step - loss: 0.6548 - accuracy: 0.6472
Epoch 81/100
39/39 [=====] - 0s 2ms/step - loss: 0.6426 - accuracy: 0.6667
Epoch 82/100
39/39 [=====] - 0s 2ms/step - loss: 0.6422 - accuracy: 0.6634
Epoch 83/100
39/39 [=====] - 0s 2ms/step - loss: 0.6413 - accuracy: 0.6829
Epoch 84/100
39/39 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.6780
Epoch 85/100
39/39 [=====] - 0s 2ms/step - loss: 0.6430 - accuracy: 0.6553
Epoch 86/100
39/39 [=====] - 0s 2ms/step - loss: 0.6378 - accuracy: 0.6585
Epoch 87/100
39/39 [=====] - 0s 2ms/step - loss: 0.6367 - accuracy: 0.6667
Epoch 88/100
39/39 [=====] - 0s 2ms/step - loss: 0.6319 - accuracy: 0.6667
Epoch 89/100
39/39 [=====] - 0s 2ms/step - loss: 0.6406 - accuracy: 0.6667
Epoch 90/100

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39/39 [=====] - 0s 2ms/step - loss: 0.6403 - accuracy: 0.6667
Epoch 91/100
39/39 [=====] - 0s 2ms/step - loss: 0.6370 - accuracy: 0.6537
Epoch 92/100
39/39 [=====] - 0s 2ms/step - loss: 0.6427 - accuracy: 0.6407
Epoch 93/100
39/39 [=====] - 0s 3ms/step - loss: 0.6522 - accuracy: 0.6423
Epoch 94/100
39/39 [=====] - 0s 2ms/step - loss: 0.6502 - accuracy: 0.6520
Epoch 95/100
39/39 [=====] - 0s 2ms/step - loss: 0.6305 - accuracy: 0.6667
Epoch 96/100
39/39 [=====] - 0s 2ms/step - loss: 0.6435 - accuracy: 0.6683
Epoch 97/100
39/39 [=====] - 0s 2ms/step - loss: 0.6408 - accuracy: 0.6455
Epoch 98/100
39/39 [=====] - 0s 2ms/step - loss: 0.6337 - accuracy: 0.6797
Epoch 99/100
39/39 [=====] - 0s 2ms/step - loss: 0.6515 - accuracy: 0.6455
Epoch 100/100
39/39 [=====] - 0s 2ms/step - loss: 0.6281 - accuracy: 0.6585
10/10 [=====] - 0s 1ms/step - loss: 0.7176 - accuracy: 0.5490
Epoch 1/100
39/39 [=====] - 0s 2ms/step - loss: 7.1628 - accuracy: 0.5870
Epoch 2/100
39/39 [=====] - 0s 2ms/step - loss: 3.2436 - accuracy: 0.6553
Epoch 3/100
39/39 [=====] - 0s 2ms/step - loss: 1.8325 - accuracy: 0.6569
Epoch 4/100
39/39 [=====] - 0s 3ms/step - loss: 1.1922 - accuracy: 0.6504
Epoch 5/100
39/39 [=====] - 0s 2ms/step - loss: 0.8997 - accuracy: 0.6504
Epoch 6/100
39/39 [=====] - 0s 2ms/step - loss: 0.7636 - accuracy: 0.6520
Epoch 7/100
39/39 [=====] - 0s 2ms/step - loss: 0.7007 - accuracy: 0.6520
Epoch 8/100
39/39 [=====] - 0s 2ms/step - loss: 0.6711 - accuracy: 0.6520
Epoch 9/100
39/39 [=====] - 0s 1ms/step - loss: 0.6571 - accuracy: 0.6520
Epoch 10/100
39/39 [=====] - 0s 2ms/step - loss: 0.6508 - accuracy: 0.6520
Epoch 11/100
39/39 [=====] - 0s 2ms/step - loss: 0.6461 - accuracy: 0.6520
Epoch 12/100
39/39 [=====] - 0s 3ms/step - loss: 0.6438 - accuracy: 0.6520
Epoch 13/100
39/39 [=====] - 0s 2ms/step - loss: 0.6422 - accuracy: 0.6520
Epoch 14/100
39/39 [=====] - 0s 2ms/step - loss: 0.6408 - accuracy: 0.6537
Epoch 15/100
39/39 [=====] - 0s 2ms/step - loss: 0.6403 - accuracy: 0.6537
Epoch 16/100
39/39 [=====] - 0s 3ms/step - loss: 0.6373 - accuracy: 0.6520
Epoch 17/100
39/39 [=====] - 0s 3ms/step - loss: 0.6367 - accuracy: 0.6569
Epoch 18/100
39/39 [=====] - 0s 3ms/step - loss: 0.6359 - accuracy: 0.6504
Epoch 19/100
39/39 [=====] - 0s 2ms/step - loss: 0.6335 - accuracy: 0.6537
Epoch 20/100
39/39 [=====] - 0s 2ms/step - loss: 0.6354 - accuracy: 0.6569
Epoch 21/100
39/39 [=====] - 0s 2ms/step - loss: 0.6343 - accuracy: 0.6504
Epoch 22/100
39/39 [=====] - 0s 3ms/step - loss: 0.6317 - accuracy: 0.6553
Epoch 23/100
39/39 [=====] - 0s 3ms/step - loss: 0.6289 - accuracy: 0.6715
Epoch 24/100
39/39 [=====] - 0s 3ms/step - loss: 0.6294 - accuracy: 0.6667
Epoch 25/100
39/39 [=====] - 0s 3ms/step - loss: 0.6327 - accuracy: 0.6634
Epoch 26/100
39/39 [=====] - 0s 2ms/step - loss: 0.6252 - accuracy: 0.6797
Epoch 27/100
39/39 [=====] - 0s 2ms/step - loss: 0.6310 - accuracy: 0.6683
Epoch 28/100
39/39 [=====] - 0s 2ms/step - loss: 0.6273 - accuracy: 0.6862
Epoch 29/100
39/39 [=====] - 0s 3ms/step - loss: 0.6286 - accuracy: 0.6748
Epoch 30/100
39/39 [=====] - 0s 2ms/step - loss: 0.6259 - accuracy: 0.6699
```



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Epoch 31/100
39/39 [=====] - 0s 3ms/step - loss: 0.6326 - accuracy: 0.6634
Epoch 32/100
39/39 [=====] - 0s 2ms/step - loss: 0.6262 - accuracy: 0.6634
Epoch 33/100
39/39 [=====] - 0s 3ms/step - loss: 0.6225 - accuracy: 0.6911
Epoch 34/100
39/39 [=====] - 0s 2ms/step - loss: 0.6260 - accuracy: 0.6732
Epoch 35/100
39/39 [=====] - 0s 2ms/step - loss: 0.6229 - accuracy: 0.6667
Epoch 36/100
39/39 [=====] - 0s 2ms/step - loss: 0.6272 - accuracy: 0.6846
Epoch 37/100
39/39 [=====] - 0s 2ms/step - loss: 0.6336 - accuracy: 0.6683
Epoch 38/100
39/39 [=====] - 0s 2ms/step - loss: 0.6200 - accuracy: 0.6780
Epoch 39/100
39/39 [=====] - 0s 2ms/step - loss: 0.6212 - accuracy: 0.6715
Epoch 40/100
39/39 [=====] - 0s 2ms/step - loss: 0.6250 - accuracy: 0.6683
Epoch 41/100
39/39 [=====] - 0s 2ms/step - loss: 0.6244 - accuracy: 0.6862
Epoch 42/100
39/39 [=====] - 0s 3ms/step - loss: 0.6305 - accuracy: 0.6764
Epoch 43/100
39/39 [=====] - 0s 3ms/step - loss: 0.6317 - accuracy: 0.6797
Epoch 44/100
39/39 [=====] - 0s 2ms/step - loss: 0.6244 - accuracy: 0.6699
Epoch 45/100
39/39 [=====] - 0s 2ms/step - loss: 0.6228 - accuracy: 0.6748
Epoch 46/100
39/39 [=====] - 0s 2ms/step - loss: 0.6224 - accuracy: 0.6650
Epoch 47/100
39/39 [=====] - 0s 2ms/step - loss: 0.6312 - accuracy: 0.6650
Epoch 48/100
39/39 [=====] - 0s 2ms/step - loss: 0.6270 - accuracy: 0.6715
Epoch 49/100
39/39 [=====] - 0s 2ms/step - loss: 0.6297 - accuracy: 0.6894
Epoch 50/100
39/39 [=====] - 0s 2ms/step - loss: 0.6167 - accuracy: 0.6780
Epoch 51/100
39/39 [=====] - 0s 2ms/step - loss: 0.6243 - accuracy: 0.6797
Epoch 52/100
39/39 [=====] - 0s 2ms/step - loss: 0.6347 - accuracy: 0.6683
Epoch 53/100
39/39 [=====] - 0s 2ms/step - loss: 0.6115 - accuracy: 0.6829
Epoch 54/100
39/39 [=====] - 0s 2ms/step - loss: 0.6240 - accuracy: 0.6683
Epoch 55/100
39/39 [=====] - 0s 3ms/step - loss: 0.6167 - accuracy: 0.6797
Epoch 56/100
39/39 [=====] - 0s 2ms/step - loss: 0.6159 - accuracy: 0.6846
Epoch 57/100
39/39 [=====] - 0s 2ms/step - loss: 0.6246 - accuracy: 0.6911
Epoch 58/100
39/39 [=====] - 0s 2ms/step - loss: 0.6198 - accuracy: 0.6780
Epoch 59/100
39/39 [=====] - 0s 2ms/step - loss: 0.6286 - accuracy: 0.6650
Epoch 60/100
39/39 [=====] - 0s 2ms/step - loss: 0.6237 - accuracy: 0.6894
Epoch 61/100
39/39 [=====] - 0s 1ms/step - loss: 0.6180 - accuracy: 0.6959
Epoch 62/100
39/39 [=====] - 0s 2ms/step - loss: 0.6328 - accuracy: 0.6829
Epoch 63/100
39/39 [=====] - 0s 2ms/step - loss: 0.6171 - accuracy: 0.6878
Epoch 64/100
39/39 [=====] - 0s 2ms/step - loss: 0.6231 - accuracy: 0.6894
Epoch 65/100
39/39 [=====] - 0s 2ms/step - loss: 0.6152 - accuracy: 0.6911
Epoch 66/100
39/39 [=====] - 0s 2ms/step - loss: 0.6179 - accuracy: 0.6943
Epoch 67/100
39/39 [=====] - 0s 3ms/step - loss: 0.6334 - accuracy: 0.6894
Epoch 68/100
39/39 [=====] - 0s 3ms/step - loss: 0.6301 - accuracy: 0.6650
Epoch 69/100
39/39 [=====] - 0s 2ms/step - loss: 0.6235 - accuracy: 0.6520
Epoch 70/100
39/39 [=====] - 0s 2ms/step - loss: 0.6269 - accuracy: 0.6618
Epoch 71/100
39/39 [=====] - 0s 2ms/step - loss: 0.6098 - accuracy: 0.6797
```

Epoch 72/100
39/39 [=====] - 0s 2ms/step - loss: 0.6118 - accuracy: 0.6797
Epoch 73/100
39/39 [=====] - 0s 2ms/step - loss: 0.6069 - accuracy: 0.6992
Epoch 74/100
39/39 [=====] - 0s 2ms/step - loss: 0.6109 - accuracy: 0.6813
Epoch 75/100
39/39 [=====] - 0s 2ms/step - loss: 0.6377 - accuracy: 0.6634
Epoch 76/100
39/39 [=====] - 0s 2ms/step - loss: 0.6263 - accuracy: 0.6813
Epoch 77/100
39/39 [=====] - 0s 2ms/step - loss: 0.6339 - accuracy: 0.6667
Epoch 78/100
39/39 [=====] - 0s 2ms/step - loss: 0.6288 - accuracy: 0.6813
Epoch 79/100
39/39 [=====] - 0s 2ms/step - loss: 0.6159 - accuracy: 0.6943
Epoch 80/100
39/39 [=====] - 0s 3ms/step - loss: 0.6330 - accuracy: 0.6634
Epoch 81/100
39/39 [=====] - 0s 2ms/step - loss: 0.6323 - accuracy: 0.6602
Epoch 82/100
39/39 [=====] - 0s 2ms/step - loss: 0.6239 - accuracy: 0.7008
Epoch 83/100
39/39 [=====] - 0s 2ms/step - loss: 0.6147 - accuracy: 0.6878
Epoch 84/100
39/39 [=====] - 0s 2ms/step - loss: 0.6235 - accuracy: 0.6862
Epoch 85/100
39/39 [=====] - 0s 2ms/step - loss: 0.6142 - accuracy: 0.6797
Epoch 86/100
39/39 [=====] - 0s 2ms/step - loss: 0.6217 - accuracy: 0.6862
Epoch 87/100
39/39 [=====] - 0s 2ms/step - loss: 0.6256 - accuracy: 0.6732
Epoch 88/100
39/39 [=====] - 0s 2ms/step - loss: 0.6212 - accuracy: 0.6780
Epoch 89/100
39/39 [=====] - 0s 2ms/step - loss: 0.6236 - accuracy: 0.6797
Epoch 90/100
39/39 [=====] - 0s 3ms/step - loss: 0.6277 - accuracy: 0.6813
Epoch 91/100
39/39 [=====] - 0s 2ms/step - loss: 0.6188 - accuracy: 0.6862
Epoch 92/100
39/39 [=====] - 0s 4ms/step - loss: 0.7525 - accuracy: 0.6520
Epoch 93/100
39/39 [=====] - 0s 3ms/step - loss: 0.7158 - accuracy: 0.6520
Epoch 94/100
39/39 [=====] - 0s 2ms/step - loss: 0.6604 - accuracy: 0.6537
Epoch 95/100
39/39 [=====] - 0s 2ms/step - loss: 0.6222 - accuracy: 0.6634
Epoch 96/100
39/39 [=====] - 0s 3ms/step - loss: 0.6175 - accuracy: 0.6992
Epoch 97/100
39/39 [=====] - 0s 2ms/step - loss: 0.6189 - accuracy: 0.6715
Epoch 98/100
39/39 [=====] - 0s 2ms/step - loss: 0.6194 - accuracy: 0.6667
Epoch 99/100
39/39 [=====] - 0s 2ms/step - loss: 0.6302 - accuracy: 0.6650
Epoch 100/100
39/39 [=====] - 0s 2ms/step - loss: 0.6164 - accuracy: 0.6878
10/10 [=====] - 0s 1ms/step - loss: 0.6038 - accuracy: 0.6863
Epoch 1/100
39/39 [=====] - 1s 2ms/step - loss: 3.0649 - accuracy: 0.5749
Epoch 2/100
39/39 [=====] - 0s 2ms/step - loss: 1.7594 - accuracy: 0.6238
Epoch 3/100
39/39 [=====] - 0s 2ms/step - loss: 1.5876 - accuracy: 0.6515
Epoch 4/100
39/39 [=====] - 0s 4ms/step - loss: 1.4432 - accuracy: 0.6482
Epoch 5/100
39/39 [=====] - 0s 3ms/step - loss: 1.3271 - accuracy: 0.6450
Epoch 6/100
39/39 [=====] - 0s 2ms/step - loss: 1.2322 - accuracy: 0.6498
Epoch 7/100
39/39 [=====] - 0s 2ms/step - loss: 1.1453 - accuracy: 0.6482
Epoch 8/100
39/39 [=====] - 0s 2ms/step - loss: 1.0703 - accuracy: 0.6515
Epoch 9/100
39/39 [=====] - 0s 3ms/step - loss: 1.0107 - accuracy: 0.6515
Epoch 10/100
39/39 [=====] - 0s 2ms/step - loss: 0.9570 - accuracy: 0.6482
Epoch 11/100
39/39 [=====] - 0s 2ms/step - loss: 0.9115 - accuracy: 0.6547
Epoch 12/100

39/39 [=====] - 0s 2ms/step - loss: 0.8694 - accuracy: 0.6498
Epoch 13/100
39/39 [=====] - 0s 2ms/step - loss: 0.8342 - accuracy: 0.6564
Epoch 14/100
39/39 [=====] - 0s 2ms/step - loss: 0.8077 - accuracy: 0.6547
Epoch 15/100
39/39 [=====] - 0s 2ms/step - loss: 0.7841 - accuracy: 0.6531
Epoch 16/100
39/39 [=====] - 0s 3ms/step - loss: 0.7628 - accuracy: 0.6629
Epoch 17/100
39/39 [=====] - 0s 2ms/step - loss: 0.7474 - accuracy: 0.6466
Epoch 18/100
39/39 [=====] - 0s 2ms/step - loss: 0.7297 - accuracy: 0.6482
Epoch 19/100
39/39 [=====] - 0s 2ms/step - loss: 0.7184 - accuracy: 0.6515
Epoch 20/100
39/39 [=====] - 0s 2ms/step - loss: 0.7057 - accuracy: 0.6515
Epoch 21/100
39/39 [=====] - 0s 2ms/step - loss: 0.6970 - accuracy: 0.6531
Epoch 22/100
39/39 [=====] - 0s 2ms/step - loss: 0.6895 - accuracy: 0.6547
Epoch 23/100
39/39 [=====] - 0s 2ms/step - loss: 0.6836 - accuracy: 0.6498
Epoch 24/100
39/39 [=====] - 0s 2ms/step - loss: 0.6719 - accuracy: 0.6515
Epoch 25/100
39/39 [=====] - 0s 2ms/step - loss: 0.6737 - accuracy: 0.6596
Epoch 26/100
39/39 [=====] - 0s 2ms/step - loss: 0.6647 - accuracy: 0.6515
Epoch 27/100
39/39 [=====] - 0s 2ms/step - loss: 0.6574 - accuracy: 0.6629
Epoch 28/100
39/39 [=====] - 0s 2ms/step - loss: 0.6514 - accuracy: 0.6547
Epoch 29/100
39/39 [=====] - 0s 3ms/step - loss: 0.6518 - accuracy: 0.6498
Epoch 30/100
39/39 [=====] - 0s 2ms/step - loss: 0.6553 - accuracy: 0.6498
Epoch 31/100
39/39 [=====] - 0s 2ms/step - loss: 0.6557 - accuracy: 0.6661
Epoch 32/100
39/39 [=====] - 0s 2ms/step - loss: 0.6491 - accuracy: 0.6564
Epoch 33/100
39/39 [=====] - 0s 2ms/step - loss: 0.6533 - accuracy: 0.6466
Epoch 34/100
39/39 [=====] - 0s 2ms/step - loss: 0.6513 - accuracy: 0.6498
Epoch 35/100
39/39 [=====] - 0s 2ms/step - loss: 0.6455 - accuracy: 0.6564
Epoch 36/100
39/39 [=====] - 0s 2ms/step - loss: 0.6434 - accuracy: 0.6596
Epoch 37/100
39/39 [=====] - 0s 2ms/step - loss: 0.6445 - accuracy: 0.6547
Epoch 38/100
39/39 [=====] - 0s 2ms/step - loss: 0.6370 - accuracy: 0.6547
Epoch 39/100
39/39 [=====] - 0s 2ms/step - loss: 0.6432 - accuracy: 0.6433
Epoch 40/100
39/39 [=====] - 0s 2ms/step - loss: 0.6502 - accuracy: 0.6515
Epoch 41/100
39/39 [=====] - 0s 2ms/step - loss: 0.6393 - accuracy: 0.6515
Epoch 42/100
39/39 [=====] - 0s 3ms/step - loss: 0.6350 - accuracy: 0.6612
Epoch 43/100
39/39 [=====] - 0s 3ms/step - loss: 0.6391 - accuracy: 0.6547
Epoch 44/100
39/39 [=====] - 0s 2ms/step - loss: 0.6468 - accuracy: 0.6629
Epoch 45/100
39/39 [=====] - 0s 2ms/step - loss: 0.6453 - accuracy: 0.6466
Epoch 46/100
39/39 [=====] - 0s 2ms/step - loss: 0.6397 - accuracy: 0.6580
Epoch 47/100
39/39 [=====] - 0s 2ms/step - loss: 0.6500 - accuracy: 0.6515
Epoch 48/100
39/39 [=====] - 0s 2ms/step - loss: 0.6366 - accuracy: 0.6482
Epoch 49/100
39/39 [=====] - 0s 2ms/step - loss: 0.6388 - accuracy: 0.6531
Epoch 50/100
39/39 [=====] - 0s 2ms/step - loss: 0.6445 - accuracy: 0.6612
Epoch 51/100
39/39 [=====] - 0s 2ms/step - loss: 0.6438 - accuracy: 0.6612
Epoch 52/100
39/39 [=====] - 0s 2ms/step - loss: 0.6467 - accuracy: 0.6629
Epoch 53/100

39/39 [=====] - 0s 2ms/step - loss: 0.6358 - accuracy: 0.6564
Epoch 54/100
39/39 [=====] - 0s 2ms/step - loss: 0.6427 - accuracy: 0.6482
Epoch 55/100
39/39 [=====] - 0s 3ms/step - loss: 0.6401 - accuracy: 0.6547
Epoch 56/100
39/39 [=====] - 0s 2ms/step - loss: 0.6431 - accuracy: 0.6531
Epoch 57/100
39/39 [=====] - 0s 2ms/step - loss: 0.6303 - accuracy: 0.6547
Epoch 58/100
39/39 [=====] - 0s 2ms/step - loss: 0.6334 - accuracy: 0.6564
Epoch 59/100
39/39 [=====] - 0s 2ms/step - loss: 0.6366 - accuracy: 0.6450
Epoch 60/100
39/39 [=====] - 0s 2ms/step - loss: 0.6319 - accuracy: 0.6564
Epoch 61/100
39/39 [=====] - 0s 2ms/step - loss: 0.6459 - accuracy: 0.6531
Epoch 62/100
39/39 [=====] - 0s 2ms/step - loss: 0.6447 - accuracy: 0.6498
Epoch 63/100
39/39 [=====] - 0s 2ms/step - loss: 0.6381 - accuracy: 0.6531
Epoch 64/100
39/39 [=====] - 0s 2ms/step - loss: 0.6321 - accuracy: 0.6564
Epoch 65/100
39/39 [=====] - 0s 2ms/step - loss: 0.6407 - accuracy: 0.6612
Epoch 66/100
39/39 [=====] - 0s 2ms/step - loss: 0.6431 - accuracy: 0.6580
Epoch 67/100
39/39 [=====] - 0s 3ms/step - loss: 0.6557 - accuracy: 0.6482
Epoch 68/100
39/39 [=====] - 0s 3ms/step - loss: 0.6408 - accuracy: 0.6515
Epoch 69/100
39/39 [=====] - 0s 3ms/step - loss: 0.6416 - accuracy: 0.6515
Epoch 70/100
39/39 [=====] - 0s 3ms/step - loss: 0.6387 - accuracy: 0.6580
Epoch 71/100
39/39 [=====] - 0s 2ms/step - loss: 0.6358 - accuracy: 0.6596
Epoch 72/100
39/39 [=====] - 0s 2ms/step - loss: 0.6370 - accuracy: 0.6466
Epoch 73/100
39/39 [=====] - 0s 2ms/step - loss: 0.6376 - accuracy: 0.6466
Epoch 74/100
39/39 [=====] - 0s 2ms/step - loss: 0.6411 - accuracy: 0.6531
Epoch 75/100
39/39 [=====] - 0s 2ms/step - loss: 0.6425 - accuracy: 0.6531
Epoch 76/100
39/39 [=====] - 0s 2ms/step - loss: 0.6365 - accuracy: 0.6531
Epoch 77/100
39/39 [=====] - 0s 2ms/step - loss: 0.6351 - accuracy: 0.6547
Epoch 78/100
39/39 [=====] - 0s 2ms/step - loss: 0.6362 - accuracy: 0.6498
Epoch 79/100
39/39 [=====] - 0s 3ms/step - loss: 0.6393 - accuracy: 0.6547
Epoch 80/100
39/39 [=====] - 0s 3ms/step - loss: 0.6366 - accuracy: 0.6482
Epoch 81/100
39/39 [=====] - 0s 2ms/step - loss: 0.6367 - accuracy: 0.6547
Epoch 82/100
39/39 [=====] - 0s 3ms/step - loss: 0.6404 - accuracy: 0.6531
Epoch 83/100
39/39 [=====] - 0s 2ms/step - loss: 0.6451 - accuracy: 0.6580
Epoch 84/100
39/39 [=====] - 0s 2ms/step - loss: 0.6345 - accuracy: 0.6482
Epoch 85/100
39/39 [=====] - 0s 2ms/step - loss: 0.6355 - accuracy: 0.6450
Epoch 86/100
39/39 [=====] - 0s 1ms/step - loss: 0.6440 - accuracy: 0.6547
Epoch 87/100
39/39 [=====] - 0s 2ms/step - loss: 0.6373 - accuracy: 0.6482
Epoch 88/100
39/39 [=====] - 0s 2ms/step - loss: 0.6332 - accuracy: 0.6564
Epoch 89/100
39/39 [=====] - 0s 2ms/step - loss: 0.6309 - accuracy: 0.6564
Epoch 90/100
39/39 [=====] - 0s 2ms/step - loss: 0.6451 - accuracy: 0.6515
Epoch 91/100
39/39 [=====] - 0s 3ms/step - loss: 0.6352 - accuracy: 0.6564
Epoch 92/100
39/39 [=====] - 0s 1ms/step - loss: 0.6350 - accuracy: 0.6417
Epoch 93/100
39/39 [=====] - 0s 1ms/step - loss: 0.6404 - accuracy: 0.6612
Epoch 94/100

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39/39 [=====] - 0s 2ms/step - loss: 0.6399 - accuracy: 0.6547
Epoch 95/100
39/39 [=====] - 0s 2ms/step - loss: 0.6371 - accuracy: 0.6596
Epoch 96/100
39/39 [=====] - 0s 1ms/step - loss: 0.6314 - accuracy: 0.6808
Epoch 97/100
39/39 [=====] - 0s 3ms/step - loss: 0.6371 - accuracy: 0.6759
Epoch 98/100
39/39 [=====] - 0s 2ms/step - loss: 0.6334 - accuracy: 0.6775
Epoch 99/100
39/39 [=====] - 0s 2ms/step - loss: 0.6289 - accuracy: 0.6857
Epoch 100/100
39/39 [=====] - 0s 2ms/step - loss: 0.6200 - accuracy: 0.6889
10/10 [=====] - 0s 2ms/step - loss: 0.6567 - accuracy: 0.6169
Epoch 1/100
39/39 [=====] - 0s 1ms/step - loss: 2.6849 - accuracy: 0.6368
Epoch 2/100
39/39 [=====] - 0s 2ms/step - loss: 1.8726 - accuracy: 0.6678
Epoch 3/100
39/39 [=====] - 0s 3ms/step - loss: 1.6974 - accuracy: 0.6678
Epoch 4/100
39/39 [=====] - 0s 3ms/step - loss: 1.5399 - accuracy: 0.6678
Epoch 5/100
39/39 [=====] - 0s 2ms/step - loss: 1.4116 - accuracy: 0.6678
Epoch 6/100
39/39 [=====] - 0s 2ms/step - loss: 1.2975 - accuracy: 0.6678
Epoch 7/100
39/39 [=====] - 0s 2ms/step - loss: 1.2052 - accuracy: 0.6678
Epoch 8/100
39/39 [=====] - 0s 2ms/step - loss: 1.1195 - accuracy: 0.6678
Epoch 9/100
39/39 [=====] - 0s 2ms/step - loss: 1.0529 - accuracy: 0.6678
Epoch 10/100
39/39 [=====] - 0s 2ms/step - loss: 0.9959 - accuracy: 0.6678
Epoch 11/100
39/39 [=====] - 0s 2ms/step - loss: 0.9502 - accuracy: 0.6678
Epoch 12/100
39/39 [=====] - 0s 2ms/step - loss: 0.9056 - accuracy: 0.6726
Epoch 13/100
39/39 [=====] - 0s 2ms/step - loss: 0.8572 - accuracy: 0.6726
Epoch 14/100
39/39 [=====] - 0s 2ms/step - loss: 0.8250 - accuracy: 0.6726
Epoch 15/100
39/39 [=====] - 0s 3ms/step - loss: 0.8030 - accuracy: 0.6710
Epoch 16/100
39/39 [=====] - 0s 6ms/step - loss: 0.7810 - accuracy: 0.6694
Epoch 17/100
39/39 [=====] - 0s 4ms/step - loss: 0.7501 - accuracy: 0.6759
Epoch 18/100
39/39 [=====] - 0s 2ms/step - loss: 0.7418 - accuracy: 0.6694
Epoch 19/100
39/39 [=====] - 0s 2ms/step - loss: 0.7268 - accuracy: 0.6580
Epoch 20/100
39/39 [=====] - 0s 2ms/step - loss: 0.7098 - accuracy: 0.6710
Epoch 21/100
39/39 [=====] - 0s 2ms/step - loss: 0.6920 - accuracy: 0.6775
Epoch 22/100
39/39 [=====] - 0s 3ms/step - loss: 0.6908 - accuracy: 0.6775
Epoch 23/100
39/39 [=====] - 0s 2ms/step - loss: 0.6834 - accuracy: 0.6596
Epoch 24/100
39/39 [=====] - 0s 2ms/step - loss: 0.6758 - accuracy: 0.6726
Epoch 25/100
39/39 [=====] - 0s 2ms/step - loss: 0.6570 - accuracy: 0.6824
Epoch 26/100
39/39 [=====] - 0s 2ms/step - loss: 0.6595 - accuracy: 0.6759
Epoch 27/100
39/39 [=====] - 0s 3ms/step - loss: 0.6591 - accuracy: 0.6873
Epoch 28/100
39/39 [=====] - 0s 2ms/step - loss: 0.6527 - accuracy: 0.6694
Epoch 29/100
39/39 [=====] - 0s 2ms/step - loss: 0.6375 - accuracy: 0.7117
Epoch 30/100
39/39 [=====] - 0s 2ms/step - loss: 0.6320 - accuracy: 0.7117
Epoch 31/100
39/39 [=====] - 0s 2ms/step - loss: 0.6405 - accuracy: 0.6987
Epoch 32/100
39/39 [=====] - 0s 2ms/step - loss: 0.6359 - accuracy: 0.7052
Epoch 33/100
39/39 [=====] - 0s 2ms/step - loss: 0.6256 - accuracy: 0.7020
Epoch 34/100
39/39 [=====] - 0s 2ms/step - loss: 0.6326 - accuracy: 0.6971
```

Epoch 35/100
39/39 [=====] - 0s 2ms/step - loss: 0.6317 - accuracy: 0.7052
Epoch 36/100
39/39 [=====] - 0s 2ms/step - loss: 0.6248 - accuracy: 0.6906
Epoch 37/100
39/39 [=====] - 0s 3ms/step - loss: 0.6268 - accuracy: 0.6954
Epoch 38/100
39/39 [=====] - 0s 2ms/step - loss: 0.6267 - accuracy: 0.6710
Epoch 39/100
39/39 [=====] - 0s 2ms/step - loss: 0.6247 - accuracy: 0.7085
Epoch 40/100
39/39 [=====] - 0s 3ms/step - loss: 0.6298 - accuracy: 0.6987
Epoch 41/100
39/39 [=====] - 0s 2ms/step - loss: 0.6203 - accuracy: 0.7101
Epoch 42/100
39/39 [=====] - 0s 4ms/step - loss: 0.6244 - accuracy: 0.6987
Epoch 43/100
39/39 [=====] - 0s 3ms/step - loss: 0.6094 - accuracy: 0.7085
Epoch 44/100
39/39 [=====] - 0s 2ms/step - loss: 0.6183 - accuracy: 0.7085
Epoch 45/100
39/39 [=====] - 0s 2ms/step - loss: 0.6090 - accuracy: 0.7003
Epoch 46/100
39/39 [=====] - 0s 2ms/step - loss: 0.6216 - accuracy: 0.6792
Epoch 47/100
39/39 [=====] - 0s 2ms/step - loss: 0.6207 - accuracy: 0.7117
Epoch 48/100
39/39 [=====] - 0s 2ms/step - loss: 0.6154 - accuracy: 0.6954
Epoch 49/100
39/39 [=====] - 0s 2ms/step - loss: 0.6078 - accuracy: 0.7085
Epoch 50/100
39/39 [=====] - 0s 2ms/step - loss: 0.6143 - accuracy: 0.7231
Epoch 51/100
39/39 [=====] - 0s 2ms/step - loss: 0.6183 - accuracy: 0.7020
Epoch 52/100
39/39 [=====] - 0s 3ms/step - loss: 0.6090 - accuracy: 0.6922
Epoch 53/100
39/39 [=====] - 0s 2ms/step - loss: 0.6050 - accuracy: 0.7199
Epoch 54/100
39/39 [=====] - 0s 2ms/step - loss: 0.6171 - accuracy: 0.7052
Epoch 55/100
39/39 [=====] - 0s 2ms/step - loss: 0.6124 - accuracy: 0.6954
Epoch 56/100
39/39 [=====] - 0s 2ms/step - loss: 0.6115 - accuracy: 0.7117
Epoch 57/100
39/39 [=====] - 0s 2ms/step - loss: 0.6086 - accuracy: 0.7036
Epoch 58/100
39/39 [=====] - 0s 2ms/step - loss: 0.6151 - accuracy: 0.7036
Epoch 59/100
39/39 [=====] - 0s 2ms/step - loss: 0.6083 - accuracy: 0.6922
Epoch 60/100
39/39 [=====] - 0s 2ms/step - loss: 0.6045 - accuracy: 0.7052
Epoch 61/100
39/39 [=====] - 0s 2ms/step - loss: 0.6084 - accuracy: 0.7020
Epoch 62/100
39/39 [=====] - 0s 2ms/step - loss: 0.6013 - accuracy: 0.6954
Epoch 63/100
39/39 [=====] - 0s 2ms/step - loss: 0.5964 - accuracy: 0.7150
Epoch 64/100
39/39 [=====] - 0s 2ms/step - loss: 0.6025 - accuracy: 0.7036
Epoch 65/100
39/39 [=====] - 0s 3ms/step - loss: 0.5993 - accuracy: 0.7117
Epoch 66/100
39/39 [=====] - 0s 2ms/step - loss: 0.5992 - accuracy: 0.7068
Epoch 67/100
39/39 [=====] - 0s 2ms/step - loss: 0.6024 - accuracy: 0.7215
Epoch 68/100
39/39 [=====] - 0s 2ms/step - loss: 0.6046 - accuracy: 0.7199
Epoch 69/100
39/39 [=====] - 0s 2ms/step - loss: 0.6118 - accuracy: 0.7003
Epoch 70/100
39/39 [=====] - 0s 2ms/step - loss: 0.6036 - accuracy: 0.7117
Epoch 71/100
39/39 [=====] - 0s 2ms/step - loss: 0.5980 - accuracy: 0.7101
Epoch 72/100
39/39 [=====] - 0s 2ms/step - loss: 0.6087 - accuracy: 0.6922
Epoch 73/100
39/39 [=====] - 0s 2ms/step - loss: 0.5941 - accuracy: 0.7199
Epoch 74/100
39/39 [=====] - 0s 2ms/step - loss: 0.5916 - accuracy: 0.7150
Epoch 75/100
39/39 [=====] - 0s 2ms/step - loss: 0.6015 - accuracy: 0.7231

Epoch 76/100
39/39 [=====] - 0s 2ms/step - loss: 0.5910 - accuracy: 0.7231
Epoch 77/100
39/39 [=====] - 0s 2ms/step - loss: 0.5928 - accuracy: 0.7003
Epoch 78/100
39/39 [=====] - 0s 3ms/step - loss: 0.5990 - accuracy: 0.7003
Epoch 79/100
39/39 [=====] - 0s 2ms/step - loss: 0.5893 - accuracy: 0.7166
Epoch 80/100
39/39 [=====] - 0s 2ms/step - loss: 0.5937 - accuracy: 0.7215
Epoch 81/100
39/39 [=====] - 0s 2ms/step - loss: 0.5901 - accuracy: 0.7150
Epoch 82/100
39/39 [=====] - 0s 2ms/step - loss: 0.5836 - accuracy: 0.7166
Epoch 83/100
39/39 [=====] - 0s 2ms/step - loss: 0.6036 - accuracy: 0.7036
Epoch 84/100
39/39 [=====] - 0s 2ms/step - loss: 0.5896 - accuracy: 0.7052
Epoch 85/100
39/39 [=====] - 0s 2ms/step - loss: 0.5868 - accuracy: 0.7215
Epoch 86/100
39/39 [=====] - 0s 2ms/step - loss: 0.5961 - accuracy: 0.6938
Epoch 87/100
39/39 [=====] - 0s 3ms/step - loss: 0.6025 - accuracy: 0.7215
Epoch 88/100
39/39 [=====] - 0s 2ms/step - loss: 0.5976 - accuracy: 0.7101
Epoch 89/100
39/39 [=====] - 0s 2ms/step - loss: 0.5874 - accuracy: 0.7085
Epoch 90/100
39/39 [=====] - 0s 3ms/step - loss: 0.5953 - accuracy: 0.7068
Epoch 91/100
39/39 [=====] - 0s 2ms/step - loss: 0.5855 - accuracy: 0.7134
Epoch 92/100
39/39 [=====] - 0s 3ms/step - loss: 0.5928 - accuracy: 0.7003
Epoch 93/100
39/39 [=====] - 0s 2ms/step - loss: 0.5877 - accuracy: 0.7199
Epoch 94/100
39/39 [=====] - 0s 2ms/step - loss: 0.5863 - accuracy: 0.7101
Epoch 95/100
39/39 [=====] - 0s 2ms/step - loss: 0.5941 - accuracy: 0.7117
Epoch 96/100
39/39 [=====] - 0s 2ms/step - loss: 0.5913 - accuracy: 0.6971
Epoch 97/100
39/39 [=====] - 0s 2ms/step - loss: 0.5868 - accuracy: 0.7117
Epoch 98/100
39/39 [=====] - 0s 2ms/step - loss: 0.5930 - accuracy: 0.7020
Epoch 99/100
39/39 [=====] - 0s 2ms/step - loss: 0.5892 - accuracy: 0.7085
Epoch 100/100
39/39 [=====] - 0s 2ms/step - loss: 0.5803 - accuracy: 0.7117
10/10 [=====] - 0s 1ms/step - loss: 0.6369 - accuracy: 0.7078
Epoch 1/100
39/39 [=====] - 0s 1ms/step - loss: 5.6444 - accuracy: 0.5407
Epoch 2/100
39/39 [=====] - 0s 1ms/step - loss: 1.8452 - accuracy: 0.6352
Epoch 3/100
39/39 [=====] - 0s 1ms/step - loss: 1.6494 - accuracy: 0.6450
Epoch 4/100
39/39 [=====] - 0s 3ms/step - loss: 1.4994 - accuracy: 0.6645
Epoch 5/100
39/39 [=====] - 0s 2ms/step - loss: 1.3715 - accuracy: 0.6547
Epoch 6/100
39/39 [=====] - 0s 1ms/step - loss: 1.2557 - accuracy: 0.6645
Epoch 7/100
39/39 [=====] - 0s 1ms/step - loss: 1.1683 - accuracy: 0.6645
Epoch 8/100
39/39 [=====] - 0s 2ms/step - loss: 1.0923 - accuracy: 0.6564
Epoch 9/100
39/39 [=====] - 0s 2ms/step - loss: 1.0223 - accuracy: 0.6612
Epoch 10/100
39/39 [=====] - 0s 2ms/step - loss: 0.9675 - accuracy: 0.6596
Epoch 11/100
39/39 [=====] - 0s 1ms/step - loss: 0.9157 - accuracy: 0.6678
Epoch 12/100
39/39 [=====] - 0s 2ms/step - loss: 0.8768 - accuracy: 0.6645
Epoch 13/100
39/39 [=====] - 0s 2ms/step - loss: 0.8382 - accuracy: 0.6645
Epoch 14/100
39/39 [=====] - 0s 2ms/step - loss: 0.8125 - accuracy: 0.6645
Epoch 15/100
39/39 [=====] - 0s 1ms/step - loss: 0.7868 - accuracy: 0.6612
Epoch 16/100

39/39 [=====] - 0s 2ms/step - loss: 0.7635 - accuracy: 0.6661
Epoch 17/100
39/39 [=====] - 0s 1ms/step - loss: 0.7404 - accuracy: 0.6775
Epoch 18/100
39/39 [=====] - 0s 2ms/step - loss: 0.7337 - accuracy: 0.6515
Epoch 19/100
39/39 [=====] - 0s 2ms/step - loss: 0.7218 - accuracy: 0.6661
Epoch 20/100
39/39 [=====] - 0s 2ms/step - loss: 0.7031 - accuracy: 0.6759
Epoch 21/100
39/39 [=====] - 0s 1ms/step - loss: 0.6978 - accuracy: 0.6547
Epoch 22/100
39/39 [=====] - 0s 2ms/step - loss: 0.6841 - accuracy: 0.6612
Epoch 23/100
39/39 [=====] - 0s 2ms/step - loss: 0.6857 - accuracy: 0.6661
Epoch 24/100
39/39 [=====] - 0s 2ms/step - loss: 0.6750 - accuracy: 0.6547
Epoch 25/100
39/39 [=====] - 0s 2ms/step - loss: 0.6721 - accuracy: 0.6661
Epoch 26/100
39/39 [=====] - 0s 2ms/step - loss: 0.6692 - accuracy: 0.6694
Epoch 27/100
39/39 [=====] - 0s 2ms/step - loss: 0.6606 - accuracy: 0.6759
Epoch 28/100
39/39 [=====] - 0s 2ms/step - loss: 0.6571 - accuracy: 0.6938
Epoch 29/100
39/39 [=====] - 0s 3ms/step - loss: 0.6591 - accuracy: 0.6808
Epoch 30/100
39/39 [=====] - 0s 4ms/step - loss: 0.6465 - accuracy: 0.6824
Epoch 31/100
39/39 [=====] - 0s 3ms/step - loss: 0.6518 - accuracy: 0.6759
Epoch 32/100
39/39 [=====] - 0s 3ms/step - loss: 0.6442 - accuracy: 0.6840
Epoch 33/100
39/39 [=====] - 0s 2ms/step - loss: 0.6553 - accuracy: 0.6498
Epoch 34/100
39/39 [=====] - 0s 2ms/step - loss: 0.6329 - accuracy: 0.6661
Epoch 35/100
39/39 [=====] - 0s 2ms/step - loss: 0.6436 - accuracy: 0.6759
Epoch 36/100
39/39 [=====] - 0s 2ms/step - loss: 0.6349 - accuracy: 0.6857
Epoch 37/100
39/39 [=====] - 0s 2ms/step - loss: 0.6394 - accuracy: 0.6661
Epoch 38/100
39/39 [=====] - 0s 2ms/step - loss: 0.6361 - accuracy: 0.6808
Epoch 39/100
39/39 [=====] - 0s 2ms/step - loss: 0.6378 - accuracy: 0.6759
Epoch 40/100
39/39 [=====] - 0s 2ms/step - loss: 0.6331 - accuracy: 0.7003
Epoch 41/100
39/39 [=====] - 0s 2ms/step - loss: 0.6319 - accuracy: 0.6971
Epoch 42/100
39/39 [=====] - 0s 2ms/step - loss: 0.6339 - accuracy: 0.6840
Epoch 43/100
39/39 [=====] - 0s 4ms/step - loss: 0.6230 - accuracy: 0.6857
Epoch 44/100
39/39 [=====] - 0s 3ms/step - loss: 0.6323 - accuracy: 0.6612
Epoch 45/100
39/39 [=====] - 0s 2ms/step - loss: 0.6272 - accuracy: 0.6694
Epoch 46/100
39/39 [=====] - 0s 2ms/step - loss: 0.6377 - accuracy: 0.6710
Epoch 47/100
39/39 [=====] - 0s 2ms/step - loss: 0.6263 - accuracy: 0.6808
Epoch 48/100
39/39 [=====] - 0s 2ms/step - loss: 0.6113 - accuracy: 0.7020
Epoch 49/100
39/39 [=====] - 0s 2ms/step - loss: 0.6238 - accuracy: 0.6873
Epoch 50/100
39/39 [=====] - 0s 2ms/step - loss: 0.6238 - accuracy: 0.7101
Epoch 51/100
39/39 [=====] - 0s 2ms/step - loss: 0.6245 - accuracy: 0.6824
Epoch 52/100
39/39 [=====] - 0s 2ms/step - loss: 0.6246 - accuracy: 0.6971
Epoch 53/100
39/39 [=====] - 0s 2ms/step - loss: 0.6191 - accuracy: 0.7052
Epoch 54/100
39/39 [=====] - 0s 2ms/step - loss: 0.6299 - accuracy: 0.6645
Epoch 55/100
39/39 [=====] - 0s 3ms/step - loss: 0.6231 - accuracy: 0.6889
Epoch 56/100
39/39 [=====] - 0s 3ms/step - loss: 0.6135 - accuracy: 0.7020
Epoch 57/100


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39/39 [=====] - 0s 2ms/step - loss: 0.6193 - accuracy: 0.6857
Epoch 58/100
39/39 [=====] - 0s 2ms/step - loss: 0.6301 - accuracy: 0.6678
Epoch 59/100
39/39 [=====] - 0s 2ms/step - loss: 0.6284 - accuracy: 0.6775
Epoch 60/100
39/39 [=====] - 0s 2ms/step - loss: 0.6210 - accuracy: 0.6840
Epoch 61/100
39/39 [=====] - 0s 2ms/step - loss: 0.6170 - accuracy: 0.6824
Epoch 62/100
39/39 [=====] - 0s 2ms/step - loss: 0.6280 - accuracy: 0.6775
Epoch 63/100
39/39 [=====] - 0s 2ms/step - loss: 0.6123 - accuracy: 0.7117
Epoch 64/100
39/39 [=====] - 0s 2ms/step - loss: 0.6230 - accuracy: 0.6743
Epoch 65/100
39/39 [=====] - 0s 2ms/step - loss: 0.6166 - accuracy: 0.6987
Epoch 66/100
39/39 [=====] - 0s 1ms/step - loss: 0.6212 - accuracy: 0.6824
Epoch 67/100
39/39 [=====] - 0s 2ms/step - loss: 0.6179 - accuracy: 0.6775
Epoch 68/100
39/39 [=====] - 0s 2ms/step - loss: 0.6246 - accuracy: 0.6775
Epoch 69/100
39/39 [=====] - 0s 4ms/step - loss: 0.6141 - accuracy: 0.6808
Epoch 70/100
39/39 [=====] - 0s 2ms/step - loss: 0.6097 - accuracy: 0.6906
Epoch 71/100
39/39 [=====] - 0s 2ms/step - loss: 0.6120 - accuracy: 0.6922
Epoch 72/100
39/39 [=====] - 0s 2ms/step - loss: 0.6164 - accuracy: 0.6889
Epoch 73/100
39/39 [=====] - 0s 2ms/step - loss: 0.6218 - accuracy: 0.6759
Epoch 74/100
39/39 [=====] - 0s 2ms/step - loss: 0.6137 - accuracy: 0.7085
Epoch 75/100
39/39 [=====] - 0s 2ms/step - loss: 0.6206 - accuracy: 0.6906
Epoch 76/100
39/39 [=====] - 0s 2ms/step - loss: 0.6093 - accuracy: 0.7020
Epoch 77/100
39/39 [=====] - 0s 2ms/step - loss: 0.6184 - accuracy: 0.6873
Epoch 78/100
39/39 [=====] - 0s 2ms/step - loss: 0.6230 - accuracy: 0.6840
Epoch 79/100
39/39 [=====] - 0s 2ms/step - loss: 0.6207 - accuracy: 0.6612
Epoch 80/100
39/39 [=====] - 0s 2ms/step - loss: 0.6040 - accuracy: 0.6987
Epoch 81/100
39/39 [=====] - 0s 2ms/step - loss: 0.6174 - accuracy: 0.6824
Epoch 82/100
39/39 [=====] - 0s 3ms/step - loss: 0.6117 - accuracy: 0.6759
Epoch 83/100
39/39 [=====] - 0s 2ms/step - loss: 0.6074 - accuracy: 0.6954
Epoch 84/100
39/39 [=====] - 0s 2ms/step - loss: 0.6138 - accuracy: 0.6824
Epoch 85/100
39/39 [=====] - 0s 2ms/step - loss: 0.6332 - accuracy: 0.6759
Epoch 86/100
39/39 [=====] - 0s 2ms/step - loss: 0.6132 - accuracy: 0.6971
Epoch 87/100
39/39 [=====] - 0s 2ms/step - loss: 0.6107 - accuracy: 0.6824
Epoch 88/100
39/39 [=====] - 0s 1ms/step - loss: 0.5977 - accuracy: 0.6954
Epoch 89/100
39/39 [=====] - 0s 2ms/step - loss: 0.6132 - accuracy: 0.6792
Epoch 90/100
39/39 [=====] - 0s 2ms/step - loss: 0.6082 - accuracy: 0.7036
Epoch 91/100
39/39 [=====] - 0s 1ms/step - loss: 0.6063 - accuracy: 0.6906
Epoch 92/100
39/39 [=====] - 0s 1ms/step - loss: 0.6116 - accuracy: 0.7020
Epoch 93/100
39/39 [=====] - 0s 1ms/step - loss: 0.6038 - accuracy: 0.7150
Epoch 94/100
39/39 [=====] - 0s 2ms/step - loss: 0.6034 - accuracy: 0.6954
Epoch 95/100
39/39 [=====] - 0s 2ms/step - loss: 0.6043 - accuracy: 0.6857
Epoch 96/100
39/39 [=====] - 0s 3ms/step - loss: 0.5986 - accuracy: 0.7117
Epoch 97/100
39/39 [=====] - 0s 4ms/step - loss: 0.6059 - accuracy: 0.7003
Epoch 98/100
```

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39/39 [=====] - 0s 2ms/step - loss: 0.6006 - accuracy: 0.6889
Epoch 99/100
39/39 [=====] - 0s 2ms/step - loss: 0.6120 - accuracy: 0.6906
Epoch 100/100
39/39 [=====] - 0s 2ms/step - loss: 0.6012 - accuracy: 0.6873
10/10 [=====] - 0s 2ms/step - loss: 0.6335 - accuracy: 0.6688
Epoch 1/100
39/39 [=====] - 0s 1ms/step - loss: 3.6653 - accuracy: 0.6065
Epoch 2/100
39/39 [=====] - 0s 1ms/step - loss: 1.7362 - accuracy: 0.6293
Epoch 3/100
39/39 [=====] - 0s 1ms/step - loss: 1.5687 - accuracy: 0.6228
Epoch 4/100
39/39 [=====] - 0s 1ms/step - loss: 1.4396 - accuracy: 0.6293
Epoch 5/100
39/39 [=====] - 0s 1ms/step - loss: 1.3205 - accuracy: 0.6276
Epoch 6/100
39/39 [=====] - 0s 1ms/step - loss: 1.2204 - accuracy: 0.6276
Epoch 7/100
39/39 [=====] - 0s 2ms/step - loss: 1.1371 - accuracy: 0.6276
Epoch 8/100
39/39 [=====] - 0s 2ms/step - loss: 1.0589 - accuracy: 0.6276
Epoch 9/100
39/39 [=====] - 0s 2ms/step - loss: 1.0045 - accuracy: 0.6293
Epoch 10/100
39/39 [=====] - 0s 2ms/step - loss: 0.9570 - accuracy: 0.6341
Epoch 11/100
39/39 [=====] - 0s 1ms/step - loss: 0.9110 - accuracy: 0.6309
Epoch 12/100
39/39 [=====] - 0s 1ms/step - loss: 0.8670 - accuracy: 0.6293
Epoch 13/100
39/39 [=====] - 0s 1ms/step - loss: 0.8459 - accuracy: 0.6276
Epoch 14/100
39/39 [=====] - 0s 1ms/step - loss: 0.8112 - accuracy: 0.6293
Epoch 15/100
39/39 [=====] - 0s 2ms/step - loss: 0.7915 - accuracy: 0.6293
Epoch 16/100
39/39 [=====] - 0s 1ms/step - loss: 0.7643 - accuracy: 0.6276
Epoch 17/100
39/39 [=====] - 0s 2ms/step - loss: 0.7537 - accuracy: 0.6260
Epoch 18/100
39/39 [=====] - 0s 2ms/step - loss: 0.7357 - accuracy: 0.6325
Epoch 19/100
39/39 [=====] - 0s 2ms/step - loss: 0.7285 - accuracy: 0.6260
Epoch 20/100
39/39 [=====] - 0s 1ms/step - loss: 0.7157 - accuracy: 0.6325
Epoch 21/100
39/39 [=====] - 0s 2ms/step - loss: 0.7135 - accuracy: 0.6341
Epoch 22/100
39/39 [=====] - 0s 2ms/step - loss: 0.6929 - accuracy: 0.6358
Epoch 23/100
39/39 [=====] - 0s 2ms/step - loss: 0.6955 - accuracy: 0.6276
Epoch 24/100
39/39 [=====] - 0s 2ms/step - loss: 0.6825 - accuracy: 0.6325
Epoch 25/100
39/39 [=====] - 0s 2ms/step - loss: 0.6714 - accuracy: 0.6325
Epoch 26/100
39/39 [=====] - 0s 2ms/step - loss: 0.6729 - accuracy: 0.6325
Epoch 27/100
39/39 [=====] - 0s 2ms/step - loss: 0.6643 - accuracy: 0.6309
Epoch 28/100
39/39 [=====] - 0s 2ms/step - loss: 0.6651 - accuracy: 0.6390
Epoch 29/100
39/39 [=====] - 0s 1ms/step - loss: 0.6594 - accuracy: 0.6569
Epoch 30/100
39/39 [=====] - 0s 2ms/step - loss: 0.6645 - accuracy: 0.6488
Epoch 31/100
39/39 [=====] - 0s 1ms/step - loss: 0.6683 - accuracy: 0.6244
Epoch 32/100
39/39 [=====] - 0s 2ms/step - loss: 0.6560 - accuracy: 0.6341
Epoch 33/100
39/39 [=====] - 0s 2ms/step - loss: 0.6618 - accuracy: 0.6309
Epoch 34/100
39/39 [=====] - 0s 2ms/step - loss: 0.6569 - accuracy: 0.6244
Epoch 35/100
39/39 [=====] - 0s 3ms/step - loss: 0.6584 - accuracy: 0.6260
Epoch 36/100
39/39 [=====] - 0s 2ms/step - loss: 0.6639 - accuracy: 0.6293
Epoch 37/100
39/39 [=====] - 0s 2ms/step - loss: 0.6499 - accuracy: 0.6374
Epoch 38/100
39/39 [=====] - 0s 2ms/step - loss: 0.6553 - accuracy: 0.6293
```

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Epoch 39/100
39/39 [=====] - 0s 2ms/step - loss: 0.6502 - accuracy: 0.6341
Epoch 40/100
39/39 [=====] - 0s 2ms/step - loss: 0.6567 - accuracy: 0.6341
Epoch 41/100
39/39 [=====] - 0s 2ms/step - loss: 0.6546 - accuracy: 0.6374
Epoch 42/100
39/39 [=====] - 0s 1ms/step - loss: 0.6504 - accuracy: 0.6423
Epoch 43/100
39/39 [=====] - 0s 2ms/step - loss: 0.6466 - accuracy: 0.6553
Epoch 44/100
39/39 [=====] - 0s 1ms/step - loss: 0.6452 - accuracy: 0.6553
Epoch 45/100
39/39 [=====] - 0s 1ms/step - loss: 0.6502 - accuracy: 0.6423
Epoch 46/100
39/39 [=====] - 0s 2ms/step - loss: 0.6484 - accuracy: 0.6504
Epoch 47/100
39/39 [=====] - 0s 3ms/step - loss: 0.6446 - accuracy: 0.6715
Epoch 48/100
39/39 [=====] - 0s 2ms/step - loss: 0.6412 - accuracy: 0.6504
Epoch 49/100
39/39 [=====] - 0s 2ms/step - loss: 0.6532 - accuracy: 0.6293
Epoch 50/100
39/39 [=====] - 0s 2ms/step - loss: 0.6539 - accuracy: 0.6650
Epoch 51/100
39/39 [=====] - 0s 2ms/step - loss: 0.6427 - accuracy: 0.6520
Epoch 52/100
39/39 [=====] - 0s 2ms/step - loss: 0.6371 - accuracy: 0.6634
Epoch 53/100
39/39 [=====] - 0s 2ms/step - loss: 0.6411 - accuracy: 0.6618
Epoch 54/100
39/39 [=====] - 0s 2ms/step - loss: 0.6476 - accuracy: 0.6520
Epoch 55/100
39/39 [=====] - 0s 3ms/step - loss: 0.6470 - accuracy: 0.6472
Epoch 56/100
39/39 [=====] - 0s 2ms/step - loss: 0.6409 - accuracy: 0.6764
Epoch 57/100
39/39 [=====] - 0s 2ms/step - loss: 0.6398 - accuracy: 0.6520
Epoch 58/100
39/39 [=====] - 0s 2ms/step - loss: 0.6373 - accuracy: 0.6683
Epoch 59/100
39/39 [=====] - 0s 2ms/step - loss: 0.6356 - accuracy: 0.6650
Epoch 60/100
39/39 [=====] - 0s 3ms/step - loss: 0.6417 - accuracy: 0.6569
Epoch 61/100
39/39 [=====] - 0s 2ms/step - loss: 0.6373 - accuracy: 0.6667
Epoch 62/100
39/39 [=====] - 0s 2ms/step - loss: 0.6482 - accuracy: 0.6407
Epoch 63/100
39/39 [=====] - 0s 2ms/step - loss: 0.6374 - accuracy: 0.6829
Epoch 64/100
39/39 [=====] - 0s 2ms/step - loss: 0.6432 - accuracy: 0.6537
Epoch 65/100
39/39 [=====] - 0s 2ms/step - loss: 0.6295 - accuracy: 0.6683
Epoch 66/100
39/39 [=====] - 0s 2ms/step - loss: 0.6433 - accuracy: 0.6650
Epoch 67/100
39/39 [=====] - 0s 2ms/step - loss: 0.6330 - accuracy: 0.6797
Epoch 68/100
39/39 [=====] - 0s 2ms/step - loss: 0.6260 - accuracy: 0.6618
Epoch 69/100
39/39 [=====] - 0s 2ms/step - loss: 0.6289 - accuracy: 0.6504
Epoch 70/100
39/39 [=====] - 0s 2ms/step - loss: 0.6283 - accuracy: 0.6699
Epoch 71/100
39/39 [=====] - 0s 2ms/step - loss: 0.6417 - accuracy: 0.6293
Epoch 72/100
39/39 [=====] - 0s 2ms/step - loss: 0.6340 - accuracy: 0.6553
Epoch 73/100
39/39 [=====] - 0s 3ms/step - loss: 0.6309 - accuracy: 0.6683
Epoch 74/100
39/39 [=====] - 0s 3ms/step - loss: 0.6486 - accuracy: 0.6585
Epoch 75/100
39/39 [=====] - 0s 2ms/step - loss: 0.6279 - accuracy: 0.6732
Epoch 76/100
39/39 [=====] - 0s 2ms/step - loss: 0.6257 - accuracy: 0.6748
Epoch 77/100
39/39 [=====] - 0s 2ms/step - loss: 0.6253 - accuracy: 0.6748
Epoch 78/100
39/39 [=====] - 0s 2ms/step - loss: 0.6245 - accuracy: 0.6764
Epoch 79/100
39/39 [=====] - 0s 2ms/step - loss: 0.6325 - accuracy: 0.6553
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Epoch 80/100
39/39 [=====] - 0s 2ms/step - loss: 0.6410 - accuracy: 0.6569
Epoch 81/100
39/39 [=====] - 0s 2ms/step - loss: 0.6351 - accuracy: 0.6829
Epoch 82/100
39/39 [=====] - 0s 2ms/step - loss: 0.6232 - accuracy: 0.6699
Epoch 83/100
39/39 [=====] - 0s 2ms/step - loss: 0.6313 - accuracy: 0.6748
Epoch 84/100
39/39 [=====] - 0s 2ms/step - loss: 0.6369 - accuracy: 0.6602
Epoch 85/100
39/39 [=====] - 0s 2ms/step - loss: 0.6249 - accuracy: 0.6683
Epoch 86/100
39/39 [=====] - 0s 2ms/step - loss: 0.6210 - accuracy: 0.6764
Epoch 87/100
39/39 [=====] - 0s 2ms/step - loss: 0.6185 - accuracy: 0.6764
Epoch 88/100
39/39 [=====] - 0s 2ms/step - loss: 0.6261 - accuracy: 0.6504
Epoch 89/100
39/39 [=====] - 0s 2ms/step - loss: 0.6469 - accuracy: 0.6325
Epoch 90/100
39/39 [=====] - 0s 2ms/step - loss: 0.6287 - accuracy: 0.6602
Epoch 91/100
39/39 [=====] - 0s 2ms/step - loss: 0.6229 - accuracy: 0.6569
Epoch 92/100
39/39 [=====] - 0s 2ms/step - loss: 0.6269 - accuracy: 0.6618
Epoch 93/100
39/39 [=====] - 0s 3ms/step - loss: 0.6304 - accuracy: 0.6618
Epoch 94/100
39/39 [=====] - 0s 3ms/step - loss: 0.6259 - accuracy: 0.6829
Epoch 95/100
39/39 [=====] - 0s 3ms/step - loss: 0.6256 - accuracy: 0.6683
Epoch 96/100
39/39 [=====] - 0s 2ms/step - loss: 0.6284 - accuracy: 0.6602
Epoch 97/100
39/39 [=====] - 0s 2ms/step - loss: 0.6274 - accuracy: 0.6602
Epoch 98/100
39/39 [=====] - 0s 2ms/step - loss: 0.6265 - accuracy: 0.6634
Epoch 99/100
39/39 [=====] - 0s 3ms/step - loss: 0.6239 - accuracy: 0.6829
Epoch 100/100
39/39 [=====] - 0s 2ms/step - loss: 0.6203 - accuracy: 0.6764
10/10 [=====] - 0s 1ms/step - loss: 0.5347 - accuracy: 0.7582
Epoch 1/100
39/39 [=====] - 0s 1ms/step - loss: 4.8233 - accuracy: 0.5659
Epoch 2/100
39/39 [=====] - 0s 1ms/step - loss: 1.8273 - accuracy: 0.6455
Epoch 3/100
39/39 [=====] - 0s 2ms/step - loss: 1.6476 - accuracy: 0.6569
Epoch 4/100
39/39 [=====] - 0s 2ms/step - loss: 1.5068 - accuracy: 0.6553
Epoch 5/100
39/39 [=====] - 0s 2ms/step - loss: 1.3811 - accuracy: 0.6504
Epoch 6/100
39/39 [=====] - 0s 4ms/step - loss: 1.2717 - accuracy: 0.6569
Epoch 7/100
39/39 [=====] - 0s 2ms/step - loss: 1.1813 - accuracy: 0.6390
Epoch 8/100
39/39 [=====] - 0s 2ms/step - loss: 1.0994 - accuracy: 0.6455
Epoch 9/100
39/39 [=====] - 0s 2ms/step - loss: 1.0354 - accuracy: 0.6602
Epoch 10/100
39/39 [=====] - 0s 3ms/step - loss: 0.9770 - accuracy: 0.6585
Epoch 11/100
39/39 [=====] - 0s 3ms/step - loss: 0.9254 - accuracy: 0.6537
Epoch 12/100
39/39 [=====] - 0s 2ms/step - loss: 0.8832 - accuracy: 0.6585
Epoch 13/100
39/39 [=====] - 0s 2ms/step - loss: 0.8455 - accuracy: 0.6569
Epoch 14/100
39/39 [=====] - 0s 3ms/step - loss: 0.8138 - accuracy: 0.6618
Epoch 15/100
39/39 [=====] - 0s 2ms/step - loss: 0.7874 - accuracy: 0.6537
Epoch 16/100
39/39 [=====] - 0s 3ms/step - loss: 0.7659 - accuracy: 0.6569
Epoch 17/100
39/39 [=====] - 0s 2ms/step - loss: 0.7488 - accuracy: 0.6602
Epoch 18/100
39/39 [=====] - 0s 2ms/step - loss: 0.7328 - accuracy: 0.6699
Epoch 19/100
39/39 [=====] - 0s 2ms/step - loss: 0.7166 - accuracy: 0.6537
Epoch 20/100
```

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39/39 [=====] - 0s 2ms/step - loss: 0.7046 - accuracy: 0.6537
Epoch 21/100
39/39 [=====] - 0s 2ms/step - loss: 0.6957 - accuracy: 0.6537
Epoch 22/100
39/39 [=====] - 0s 3ms/step - loss: 0.6834 - accuracy: 0.6553
Epoch 23/100
39/39 [=====] - 0s 2ms/step - loss: 0.6771 - accuracy: 0.6602
Epoch 24/100
39/39 [=====] - 0s 2ms/step - loss: 0.6694 - accuracy: 0.6618
Epoch 25/100
39/39 [=====] - 0s 2ms/step - loss: 0.6673 - accuracy: 0.6585
Epoch 26/100
39/39 [=====] - 0s 2ms/step - loss: 0.6608 - accuracy: 0.6585
Epoch 27/100
39/39 [=====] - 0s 2ms/step - loss: 0.6591 - accuracy: 0.6553
Epoch 28/100
39/39 [=====] - 0s 2ms/step - loss: 0.6499 - accuracy: 0.6602
Epoch 29/100
39/39 [=====] - 0s 2ms/step - loss: 0.6534 - accuracy: 0.6585
Epoch 30/100
39/39 [=====] - 0s 3ms/step - loss: 0.6458 - accuracy: 0.6569
Epoch 31/100
39/39 [=====] - 0s 2ms/step - loss: 0.6370 - accuracy: 0.6650
Epoch 32/100
39/39 [=====] - 0s 2ms/step - loss: 0.6430 - accuracy: 0.6602
Epoch 33/100
39/39 [=====] - 0s 2ms/step - loss: 0.6405 - accuracy: 0.6699
Epoch 34/100
39/39 [=====] - 0s 2ms/step - loss: 0.6325 - accuracy: 0.6699
Epoch 35/100
39/39 [=====] - 0s 4ms/step - loss: 0.6410 - accuracy: 0.6780
Epoch 36/100
39/39 [=====] - 0s 3ms/step - loss: 0.6295 - accuracy: 0.7106
Epoch 37/100
39/39 [=====] - 0s 2ms/step - loss: 0.6368 - accuracy: 0.6878
Epoch 38/100
39/39 [=====] - 0s 2ms/step - loss: 0.6314 - accuracy: 0.7024
Epoch 39/100
39/39 [=====] - 0s 2ms/step - loss: 0.6360 - accuracy: 0.6992
Epoch 40/100
39/39 [=====] - 0s 2ms/step - loss: 0.6291 - accuracy: 0.6911
Epoch 41/100
39/39 [=====] - 0s 2ms/step - loss: 0.6289 - accuracy: 0.6846
Epoch 42/100
39/39 [=====] - 0s 2ms/step - loss: 0.6282 - accuracy: 0.6911
Epoch 43/100
39/39 [=====] - 0s 2ms/step - loss: 0.6294 - accuracy: 0.6862
Epoch 44/100
39/39 [=====] - 0s 2ms/step - loss: 0.6278 - accuracy: 0.6797
Epoch 45/100
39/39 [=====] - 0s 2ms/step - loss: 0.6255 - accuracy: 0.6927
Epoch 46/100
39/39 [=====] - 0s 2ms/step - loss: 0.6221 - accuracy: 0.6911
Epoch 47/100
39/39 [=====] - 0s 2ms/step - loss: 0.6198 - accuracy: 0.7024
Epoch 48/100
39/39 [=====] - 0s 3ms/step - loss: 0.6269 - accuracy: 0.6911
Epoch 49/100
39/39 [=====] - 0s 2ms/step - loss: 0.6234 - accuracy: 0.7008
Epoch 50/100
39/39 [=====] - 0s 2ms/step - loss: 0.6252 - accuracy: 0.6911
Epoch 51/100
39/39 [=====] - 0s 2ms/step - loss: 0.6266 - accuracy: 0.6813
Epoch 52/100
39/39 [=====] - 0s 2ms/step - loss: 0.6243 - accuracy: 0.6894
Epoch 53/100
39/39 [=====] - 0s 2ms/step - loss: 0.6248 - accuracy: 0.6992
Epoch 54/100
39/39 [=====] - 0s 2ms/step - loss: 0.6138 - accuracy: 0.6911
Epoch 55/100
39/39 [=====] - 0s 2ms/step - loss: 0.6234 - accuracy: 0.6878
Epoch 56/100
39/39 [=====] - 0s 2ms/step - loss: 0.6227 - accuracy: 0.6943
Epoch 57/100
39/39 [=====] - 0s 2ms/step - loss: 0.6251 - accuracy: 0.7024
Epoch 58/100
39/39 [=====] - 0s 2ms/step - loss: 0.6120 - accuracy: 0.7008
Epoch 59/100
39/39 [=====] - 0s 2ms/step - loss: 0.6186 - accuracy: 0.6862
Epoch 60/100
39/39 [=====] - 0s 4ms/step - loss: 0.6134 - accuracy: 0.6862
Epoch 61/100
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39/39 [=====] - 0s 2ms/step - loss: 0.6150 - accuracy: 0.6829
Epoch 62/100
39/39 [=====] - 0s 2ms/step - loss: 0.6184 - accuracy: 0.6992
Epoch 63/100
39/39 [=====] - 0s 2ms/step - loss: 0.6245 - accuracy: 0.6846
Epoch 64/100
39/39 [=====] - 0s 2ms/step - loss: 0.6150 - accuracy: 0.7024
Epoch 65/100
39/39 [=====] - 0s 2ms/step - loss: 0.6204 - accuracy: 0.7008
Epoch 66/100
39/39 [=====] - 0s 3ms/step - loss: 0.6164 - accuracy: 0.6959
Epoch 67/100
39/39 [=====] - 0s 2ms/step - loss: 0.6107 - accuracy: 0.6992
Epoch 68/100
39/39 [=====] - 0s 2ms/step - loss: 0.6150 - accuracy: 0.6894
Epoch 69/100
39/39 [=====] - 0s 2ms/step - loss: 0.6204 - accuracy: 0.6748
Epoch 70/100
39/39 [=====] - 0s 2ms/step - loss: 0.6124 - accuracy: 0.6797
Epoch 71/100
39/39 [=====] - 0s 3ms/step - loss: 0.6138 - accuracy: 0.6959
Epoch 72/100
39/39 [=====] - 0s 3ms/step - loss: 0.6128 - accuracy: 0.7073
Epoch 73/100
39/39 [=====] - 0s 2ms/step - loss: 0.6110 - accuracy: 0.6911
Epoch 74/100
39/39 [=====] - 0s 2ms/step - loss: 0.6090 - accuracy: 0.7041
Epoch 75/100
39/39 [=====] - 0s 2ms/step - loss: 0.6114 - accuracy: 0.6927
Epoch 76/100
39/39 [=====] - 0s 2ms/step - loss: 0.6090 - accuracy: 0.7122
Epoch 77/100
39/39 [=====] - 0s 2ms/step - loss: 0.6161 - accuracy: 0.6943
Epoch 78/100
39/39 [=====] - 0s 2ms/step - loss: 0.6057 - accuracy: 0.6764
Epoch 79/100
39/39 [=====] - 0s 2ms/step - loss: 0.6032 - accuracy: 0.7024
Epoch 80/100
39/39 [=====] - 0s 2ms/step - loss: 0.6210 - accuracy: 0.6846
Epoch 81/100
39/39 [=====] - 0s 2ms/step - loss: 0.6149 - accuracy: 0.6878
Epoch 82/100
39/39 [=====] - 0s 2ms/step - loss: 0.6103 - accuracy: 0.7073
Epoch 83/100
39/39 [=====] - 0s 3ms/step - loss: 0.6079 - accuracy: 0.7106
Epoch 84/100
39/39 [=====] - 0s 3ms/step - loss: 0.6004 - accuracy: 0.6943
Epoch 85/100
39/39 [=====] - 0s 3ms/step - loss: 0.6038 - accuracy: 0.6976
Epoch 86/100
39/39 [=====] - 0s 2ms/step - loss: 0.6008 - accuracy: 0.7073
Epoch 87/100
39/39 [=====] - 0s 2ms/step - loss: 0.6038 - accuracy: 0.6992
Epoch 88/100
39/39 [=====] - 0s 2ms/step - loss: 0.6047 - accuracy: 0.6976
Epoch 89/100
39/39 [=====] - 0s 2ms/step - loss: 0.6045 - accuracy: 0.6829
Epoch 90/100
39/39 [=====] - 0s 2ms/step - loss: 0.6154 - accuracy: 0.6927
Epoch 91/100
39/39 [=====] - 0s 2ms/step - loss: 0.6055 - accuracy: 0.6878
Epoch 92/100
39/39 [=====] - 0s 2ms/step - loss: 0.5998 - accuracy: 0.7106
Epoch 93/100
39/39 [=====] - 0s 2ms/step - loss: 0.6005 - accuracy: 0.7057
Epoch 94/100
39/39 [=====] - 0s 2ms/step - loss: 0.6002 - accuracy: 0.7122
Epoch 95/100
39/39 [=====] - 0s 2ms/step - loss: 0.6048 - accuracy: 0.6846
Epoch 96/100
39/39 [=====] - 0s 3ms/step - loss: 0.5989 - accuracy: 0.7089
Epoch 97/100
39/39 [=====] - 0s 2ms/step - loss: 0.5997 - accuracy: 0.6976
Epoch 98/100
39/39 [=====] - 0s 2ms/step - loss: 0.6021 - accuracy: 0.7122
Epoch 99/100
39/39 [=====] - 0s 2ms/step - loss: 0.6074 - accuracy: 0.6943
Epoch 100/100
39/39 [=====] - 0s 2ms/step - loss: 0.5968 - accuracy: 0.7154
10/10 [=====] - 0s 1ms/step - loss: 0.6379 - accuracy: 0.6536
Epoch 1/100
96/96 [=====] - 1s 2ms/step - loss: 2.4318 - accuracy: 0.6120
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Epoch 2/100
96/96 [=====] - 0s 2ms/step - loss: 1.5507 - accuracy: 0.6497
Epoch 3/100
96/96 [=====] - 0s 1ms/step - loss: 1.2636 - accuracy: 0.6497
Epoch 4/100
96/96 [=====] - 0s 3ms/step - loss: 1.0678 - accuracy: 0.6510
Epoch 5/100
96/96 [=====] - 0s 2ms/step - loss: 0.9353 - accuracy: 0.6510
Epoch 6/100
96/96 [=====] - 0s 2ms/step - loss: 0.8421 - accuracy: 0.6536
Epoch 7/100
96/96 [=====] - 0s 2ms/step - loss: 0.7820 - accuracy: 0.6536
Epoch 8/100
96/96 [=====] - 0s 1ms/step - loss: 0.7309 - accuracy: 0.6471
Epoch 9/100
96/96 [=====] - 0s 1ms/step - loss: 0.6913 - accuracy: 0.6628
Epoch 10/100
96/96 [=====] - 0s 2ms/step - loss: 0.6823 - accuracy: 0.6758
Epoch 11/100
96/96 [=====] - 0s 2ms/step - loss: 0.6636 - accuracy: 0.6784
Epoch 12/100
96/96 [=====] - 0s 3ms/step - loss: 0.6535 - accuracy: 0.6654
Epoch 13/100
96/96 [=====] - 0s 2ms/step - loss: 0.6466 - accuracy: 0.6693
Epoch 14/100
96/96 [=====] - 0s 2ms/step - loss: 0.6416 - accuracy: 0.6758
Epoch 15/100
96/96 [=====] - 0s 2ms/step - loss: 0.6356 - accuracy: 0.6797
Epoch 16/100
96/96 [=====] - 0s 2ms/step - loss: 0.6329 - accuracy: 0.6719
Epoch 17/100
96/96 [=====] - 0s 2ms/step - loss: 0.6272 - accuracy: 0.6810
Epoch 18/100
96/96 [=====] - 0s 2ms/step - loss: 0.6248 - accuracy: 0.6901
Epoch 19/100
96/96 [=====] - 0s 2ms/step - loss: 0.6247 - accuracy: 0.6901
Epoch 20/100
96/96 [=====] - 0s 3ms/step - loss: 0.6266 - accuracy: 0.6797
Epoch 21/100
96/96 [=====] - 0s 2ms/step - loss: 0.6292 - accuracy: 0.6706
Epoch 22/100
96/96 [=====] - 0s 1ms/step - loss: 0.6261 - accuracy: 0.6745
Epoch 23/100
96/96 [=====] - 0s 2ms/step - loss: 0.6307 - accuracy: 0.6654
Epoch 24/100
96/96 [=====] - 0s 1ms/step - loss: 0.6170 - accuracy: 0.6862
Epoch 25/100
96/96 [=====] - 0s 2ms/step - loss: 0.6287 - accuracy: 0.6836
Epoch 26/100
96/96 [=====] - 0s 1ms/step - loss: 0.6204 - accuracy: 0.6797
Epoch 27/100
96/96 [=====] - 0s 1ms/step - loss: 0.6173 - accuracy: 0.6836
Epoch 28/100
96/96 [=====] - 0s 2ms/step - loss: 0.6162 - accuracy: 0.6849
Epoch 29/100
96/96 [=====] - 0s 2ms/step - loss: 0.6198 - accuracy: 0.6888
Epoch 30/100
96/96 [=====] - 0s 1ms/step - loss: 0.6198 - accuracy: 0.6823
Epoch 31/100
96/96 [=====] - 0s 1ms/step - loss: 0.6150 - accuracy: 0.6888
Epoch 32/100
96/96 [=====] - 0s 1ms/step - loss: 0.6069 - accuracy: 0.7031
Epoch 33/100
96/96 [=====] - 0s 1ms/step - loss: 0.6063 - accuracy: 0.6992
Epoch 34/100
96/96 [=====] - 0s 1ms/step - loss: 0.6239 - accuracy: 0.6706
Epoch 35/100
96/96 [=====] - 0s 1ms/step - loss: 0.6087 - accuracy: 0.6953
Epoch 36/100
96/96 [=====] - 0s 1ms/step - loss: 0.6052 - accuracy: 0.6966
Epoch 37/100
96/96 [=====] - 0s 2ms/step - loss: 0.6085 - accuracy: 0.6966
Epoch 38/100
96/96 [=====] - 0s 2ms/step - loss: 0.6128 - accuracy: 0.6940
Epoch 39/100
96/96 [=====] - 0s 2ms/step - loss: 0.6140 - accuracy: 0.6784
Epoch 40/100
96/96 [=====] - 0s 1ms/step - loss: 0.6144 - accuracy: 0.6823
Epoch 41/100
96/96 [=====] - 0s 2ms/step - loss: 0.6068 - accuracy: 0.6940
Epoch 42/100
96/96 [=====] - 0s 1ms/step - loss: 0.6099 - accuracy: 0.6992
```

```
Epoch 43/100
96/96 [=====] - 0s 1ms/step - loss: 0.6159 - accuracy: 0.6862
Epoch 44/100
96/96 [=====] - 0s 1ms/step - loss: 0.6126 - accuracy: 0.6901
Epoch 45/100
96/96 [=====] - 0s 2ms/step - loss: 0.6132 - accuracy: 0.6745
Epoch 46/100
96/96 [=====] - 0s 2ms/step - loss: 0.6168 - accuracy: 0.6667
Epoch 47/100
96/96 [=====] - 0s 3ms/step - loss: 0.6038 - accuracy: 0.6927
Epoch 48/100
96/96 [=====] - 0s 3ms/step - loss: 0.6104 - accuracy: 0.6888
Epoch 49/100
96/96 [=====] - 0s 2ms/step - loss: 0.6031 - accuracy: 0.6875
Epoch 50/100
96/96 [=====] - 0s 2ms/step - loss: 0.6135 - accuracy: 0.6849
Epoch 51/100
96/96 [=====] - 0s 2ms/step - loss: 0.6092 - accuracy: 0.6914
Epoch 52/100
96/96 [=====] - 0s 2ms/step - loss: 0.6027 - accuracy: 0.7070
Epoch 53/100
96/96 [=====] - 0s 2ms/step - loss: 0.6029 - accuracy: 0.7005
Epoch 54/100
96/96 [=====] - 0s 2ms/step - loss: 0.5979 - accuracy: 0.6966
Epoch 55/100
96/96 [=====] - 0s 2ms/step - loss: 0.6087 - accuracy: 0.6966
Epoch 56/100
96/96 [=====] - 0s 2ms/step - loss: 0.6086 - accuracy: 0.6953
Epoch 57/100
96/96 [=====] - 0s 2ms/step - loss: 0.6091 - accuracy: 0.7083
Epoch 58/100
96/96 [=====] - 0s 2ms/step - loss: 0.6043 - accuracy: 0.6862
Epoch 59/100
96/96 [=====] - 0s 3ms/step - loss: 0.6058 - accuracy: 0.6836
Epoch 60/100
96/96 [=====] - 0s 2ms/step - loss: 0.5989 - accuracy: 0.7018
Epoch 61/100
96/96 [=====] - 0s 1ms/step - loss: 0.5999 - accuracy: 0.6797
Epoch 62/100
96/96 [=====] - 0s 1ms/step - loss: 0.6115 - accuracy: 0.6979
Epoch 63/100
96/96 [=====] - 0s 2ms/step - loss: 0.6041 - accuracy: 0.6888
Epoch 64/100
96/96 [=====] - 0s 2ms/step - loss: 0.5939 - accuracy: 0.6953
Epoch 65/100
96/96 [=====] - 0s 2ms/step - loss: 0.6028 - accuracy: 0.6849
Epoch 66/100
96/96 [=====] - 0s 2ms/step - loss: 0.5981 - accuracy: 0.6901
Epoch 67/100
96/96 [=====] - 0s 2ms/step - loss: 0.6080 - accuracy: 0.6797
Epoch 68/100
96/96 [=====] - 0s 2ms/step - loss: 0.6088 - accuracy: 0.6849
Epoch 69/100
96/96 [=====] - 0s 2ms/step - loss: 0.6077 - accuracy: 0.6953
Epoch 70/100
96/96 [=====] - 0s 2ms/step - loss: 0.6039 - accuracy: 0.6927
Epoch 71/100
96/96 [=====] - 0s 2ms/step - loss: 0.6048 - accuracy: 0.7005
Epoch 72/100
96/96 [=====] - 0s 3ms/step - loss: 0.6100 - accuracy: 0.7018
Epoch 73/100
96/96 [=====] - 0s 2ms/step - loss: 0.6095 - accuracy: 0.6966
Epoch 74/100
96/96 [=====] - 0s 2ms/step - loss: 0.6037 - accuracy: 0.6992
Epoch 75/100
96/96 [=====] - 0s 2ms/step - loss: 0.6083 - accuracy: 0.7031
Epoch 76/100
96/96 [=====] - 0s 2ms/step - loss: 0.6025 - accuracy: 0.7005
Epoch 77/100
96/96 [=====] - 0s 3ms/step - loss: 0.6018 - accuracy: 0.7044
Epoch 78/100
96/96 [=====] - 0s 3ms/step - loss: 0.5952 - accuracy: 0.6953
Epoch 79/100
96/96 [=====] - 0s 2ms/step - loss: 0.5994 - accuracy: 0.6784
Epoch 80/100
96/96 [=====] - 0s 2ms/step - loss: 0.6026 - accuracy: 0.6901
Epoch 81/100
96/96 [=====] - 0s 2ms/step - loss: 0.6000 - accuracy: 0.6992
Epoch 82/100
96/96 [=====] - 0s 2ms/step - loss: 0.6075 - accuracy: 0.7044
Epoch 83/100
96/96 [=====] - 0s 2ms/step - loss: 0.6095 - accuracy: 0.7005
```



```

Epoch 84/100
96/96 [=====] - 0s 2ms/step - loss: 0.5949 - accuracy: 0.7083
Epoch 85/100
96/96 [=====] - 0s 2ms/step - loss: 0.5894 - accuracy: 0.7031
Epoch 86/100
96/96 [=====] - 0s 3ms/step - loss: 0.6012 - accuracy: 0.6849
Epoch 87/100
96/96 [=====] - 0s 2ms/step - loss: 0.6025 - accuracy: 0.7031
Epoch 88/100
96/96 [=====] - 0s 2ms/step - loss: 0.6048 - accuracy: 0.6849
Epoch 89/100
96/96 [=====] - 0s 2ms/step - loss: 0.6085 - accuracy: 0.6927
Epoch 90/100
96/96 [=====] - 0s 2ms/step - loss: 0.6076 - accuracy: 0.6992
Epoch 91/100
96/96 [=====] - 0s 2ms/step - loss: 0.6077 - accuracy: 0.6849
Epoch 92/100
96/96 [=====] - 0s 2ms/step - loss: 0.6046 - accuracy: 0.6953
Epoch 93/100
96/96 [=====] - 0s 2ms/step - loss: 0.6014 - accuracy: 0.7096
Epoch 94/100
96/96 [=====] - 0s 2ms/step - loss: 0.5921 - accuracy: 0.7070
Epoch 95/100
96/96 [=====] - 0s 2ms/step - loss: 0.5933 - accuracy: 0.6849
Epoch 96/100
96/96 [=====] - 0s 3ms/step - loss: 0.6073 - accuracy: 0.6953
Epoch 97/100
96/96 [=====] - 0s 2ms/step - loss: 0.6057 - accuracy: 0.6927
Epoch 98/100
96/96 [=====] - 0s 2ms/step - loss: 0.5955 - accuracy: 0.6953
Epoch 99/100
96/96 [=====] - 0s 3ms/step - loss: 0.5984 - accuracy: 0.6979
Epoch 100/100
96/96 [=====] - 0s 2ms/step - loss: 0.6028 - accuracy: 0.7109

```

```
In [ ]: results.best_params_
```

```
Out[ ]: {'batch_size': 8, 'epochs': 100, 'lambda_param': 0.1}
```

```
In [ ]: accuracy_mean = results.cv_results_['mean_test_score']
accuracy_std = results.cv_results_['std_test_score']
parameters = results.cv_results_['params']
print(results.best_score_)
print(results.best_params_)
```

```
0.7071471095085144
```

```
{'batch_size': 8, 'epochs': 100, 'lambda_param': 0.1}
```

```
In [ ]: def build_model(rate, lambda_param):
        model = Sequential()
        model.add(Dense(8, input_dim=8, activation='relu', kernel_regularizer=l2(lambda_param)))
        model.add(Dropout(rate))
        model.add(Dense(8, activation='relu', kernel_regularizer=l2(lambda_param)))
        model.add(Dropout(rate))
        model.add(Dense(1, activation='sigmoid'))
        model.compile(loss='binary_crossentropy', optimizer='sgd', metrics=['accuracy'])
        return model
```

```
In [ ]: model2 = KerasClassifier(build_fn=build_model, verbose=0)
```

```
/tmp/ipykernel_24242/2444103537.py:1: DeprecationWarning: KerasClassifier is deprecated, use Sci-Keras (https://github.com/adriangb/scikeras) instead. See https://www.adriangb.com/scikeras/stable/migration.html for help migrating.
```

```
model2 = KerasClassifier(build_fn=build_model, verbose=0)
```

```
In [ ]: rate = [0.1,0.2,0.3]
lambda_param = [0.1, 0.5]
epochs = [100]
batch_size = [8]
grid_params2 = dict(rate=rate, lambda_param=lambda_param, epochs=epochs, batch_size=batch_size)
grid_search2 = GridSearchCV(estimator=model2, param_grid=grid_params, cv=5)
```

```
In [ ]: results = grid_search2.fit(x,y)
```

```
In [ ]: accuracy_mean = results.cv_results_['mean_test_score']
accuracy_std = results.cv_results_['std_test_score']
parameters = results.cv_results_['params']
print(results.best_score_)
print(results.best_params_)
```

0.6797555446624756

{'batch_size': 8, 'epochs': 100, 'lambda_param': 0.1, 'rate': 0.2}